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see claims

Point of Contact:
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JOHN D

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Type of Search

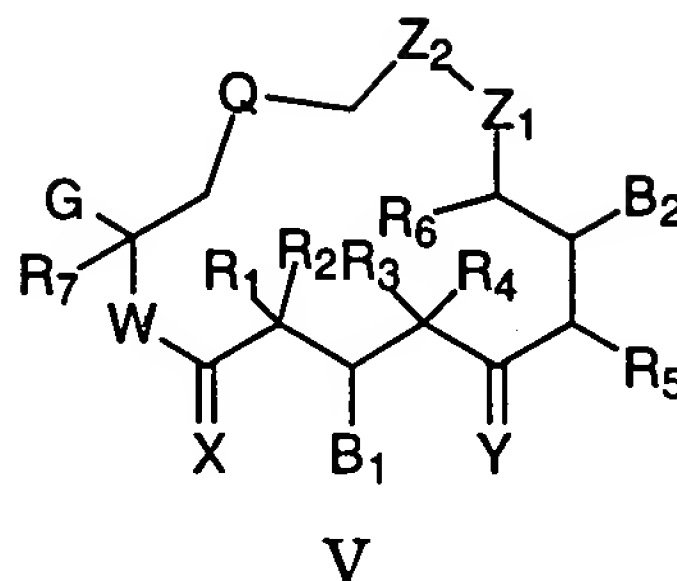
☐ N.A. Sequence☒ A.A. Sequence☐ Structure☐ Bibliographic

Vendors

☒ IG☐ STN☐ Dialog☐ APS☐ Geninfo☐ SDC☐ DARC/Questel☐ Other

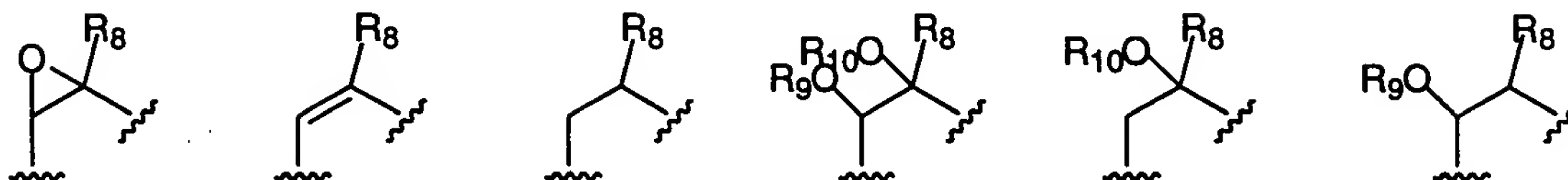
What is Claimed:

1. A compound of the formula



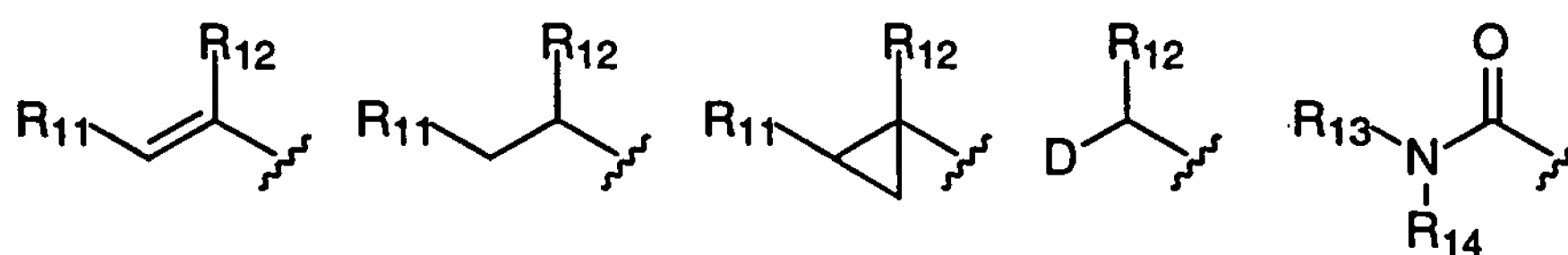
5

Q is selected from the group consisting of



10

G is selected from the group consisting of alkyl, substituted alkyl, substituted or unsubstituted aryl, heterocyclo,



15

W is O or NR₁₅;

X is O or H, H;

Y is selected from the group consisting of O; H, OR₁₆; OR₁₇, OR₁₇; NOR₁₈; H, NOR₁₉; H, NR₂₀R₂₁; H, H; or CHR₂₂; OR₁₇ OR₁₇ can be a cyclic ketal;

20

Z₁, and Z₂ are selected from the group consisting of CH₂, O, NR₂₃, S, or SO₂, wherein only one of Z₁ and Z₂ can be a heteroatom;

B₁ and B₂ are selected from the group consisting of OR₂₄, or OCOR₂₅, or O₂CNR₂₆R₂₇; when B₁ is H and Y is OH, H they can form a six-membered ring ketal or acetal;

D is selected from the group consisting of $\text{NR}_{28}\text{R}_{29}$, $\text{NR}_{30}\text{COR}_{31}$ or saturated heterocycle;

R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , R_7 , R_{13} , R_{14} , R_{18} , R_{19} , R_{20} , R_{21} , R_{22} , R_{26} , and R_{27} are selected from the group H, alkyl, substituted alkyl, or aryl
 5 and when R_1 and R_2 are alkyl can be joined to form a cycloalkyl; R_3 and R_4 are alkyl can be joined to form a cycloalkyl;

R_9 , R_{10} , R_{16} , R_{17} , R_{24} , R_{25} , and R_{31} are selected from the group H, alkyl, or substituted alkyl;

R_8 , R_{11} , R_{12} , R_{28} , R_{30} , R_{32} , R_{33} , and R_{30} are selected from the
 10 group consisting of H, alkyl, substituted alkyl, aryl, substituted aryl, cycloalkyl, or heterocycle;

R_{15} , R_{23} and R_{29} are selected from the group consisting of H, alkyl, substituted alkyl, aryl, substituted aryl, cycloalkyl, heterocycle, $\text{R}_{32}\text{C}=\text{O}$, R_{33}SO_2 , hydroxy, O-alkyl or O-substituted alkyl, the
 15 pharmaceutically acceptable salts thereof and any hydrates, solvates or geometric, optical and stereoisomers thereof, with the proviso that compounds wherein

W and X are both O; and
 R_1 , R_2 , R_7 , are H; and

20 R_3 , R_4 , R_6 , are methyl; and

R_8 , is H or methyl; and

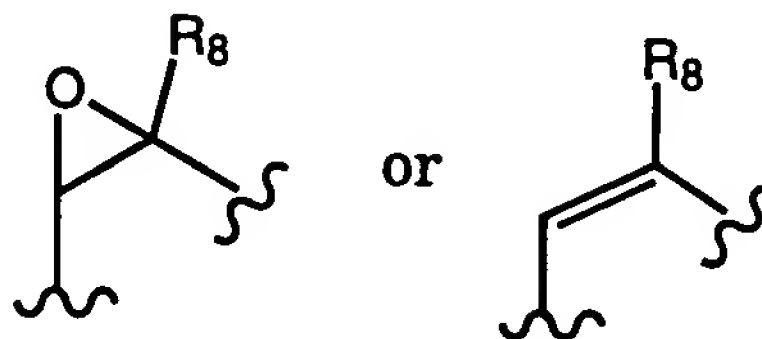
Z_1 , and Z_2 , are CH_2 ; and

G is 1-methyl-2-(substituted-4-thiazolyl)ethenyl; and

Q is as defined above

25 are excluded.

2. The compound of claim 1 wherein
Q is



5 X is O;
Y is O;
Z₁, and Z₂, are CH₂; and
W is NR₁₅.

3. A compound selected from the group consisting of:

- 10 [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-
 ① pentamethyl-3-[1-methyl-2-(2-methyl- 4-thiazolyl)ethenyl]-4,13,17-
 trioxabicyclo[14.1.0]heptadecane-5,9-dione;
- 15 [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12-
 ② tetramethyl-3-[1-methyl-2-(2-methyl- 4-thiazolyl)ethenyl]-4,13,17-
 trioxabicyclo[14.1.0]heptadecane-5,9-dione;
- 20 [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13-pentamethyl-16-
 ③ [1-methyl-2-(2-methyl- 4-thiazolyl)ethenyl]-1,10-dioxa-13-
 cyclohexadecene-2,6-dione;
- 25 [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9-tetramethyl-16-[1-
 ④ methyl-2-(2-methyl- 4-thiazolyl)ethenyl]-1,10-dioxa-13-cyclohexadecene-
 2,6-dione;
- 30 [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-
 ⑤ pentamethyl-3-[1-methyl-2-(2-methyl- 4-thiazolyl)ethenyl]-4,14,17-
 trioxabicyclo[14.1.0]heptadecane-5,9-dione;
- ⑥ [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12-
 tetramethyl-3-[1-methyl-2-(2-methyl- 4-thiazolyl)ethenyl]-4,14,17-
 trioxabicyclo[14.1.0]heptadecane-5,9-dione;

① [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13-pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1,11-dioxo-13-cyclohexadecene-2,6-dione;

5

② [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9-tetramethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1,11-dioxo-13-cyclohexadecene-2,6-dione;

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③ [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,17-dioxabicyclo[14.1.0]heptadecane-9-one;

15

④ 1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,17-dioxabicyclo[14.1.0]heptadecane-9-one;

⑤

20 [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-3,8,8,10,12,16-hexamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

25

⑥ [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-3,8,8,10,12-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

⑦

[4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13,16-hexamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1-oxa-13-cyclohexadecene-2,6-dione;

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⑧

[4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,16-pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1-oxa-13-cyclohexadecene-2,6-dione;

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⑨

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

- ①⑥ 5 [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-6,8,8,10,12-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;
- ①⑦ 10 [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4-aza-17-oxabicyclo[14.1.0]heptadecane-5,9-dione;
- ①⑧ [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4-aza-17-oxabicyclo[14.1.0]heptadecane-5,9-dione;
- ①⑨ 15 [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13-pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1-aza-13-cyclohexadecene-2,6-dione;
- ①⑩ 20 [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9-tetramethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1-aza-13-cyclohexadecene-2,6-dione;
- ①⑪ 25 [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-4,8,8,10,12,16-hexamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4-aza-17-oxabicyclo[14.1.0]heptadecane-5,9-dione;
- ①⑫ 30 [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-4,8,8,10,12-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4-aza-17-oxabicyclo[14.1.0]heptadecane-5,9-dione;
- ①⑬ 35 [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-1,5,5,7,9-pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1-aza-13-cyclohexadecene-2,6-dione;

(29)

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-aza-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

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(30)

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-aza-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

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(31)

[4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13-pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-aza-1-oxa-13-cyclohexadecene-2,6-dione;

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(32)

[4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9-tetramethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-aza-1-oxa-13-cyclohexadecene-2,6-dione;

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(33)

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-14-aza-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

25

(34)

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-14-aza-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

(35)

[4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13-pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-11-aza-1-oxa-13-cyclohexadecene-2,6-dione;

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(36)

[4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9-tetramethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-11-aza-1-oxa-13-cyclohexadecene-2,6-dione;

(37)

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[1S-[1R*,3R*,7R*,10S*,11R*,12R*,16S*]]-N-Phenyl-7,11-dihydroxy-8,8,10,12,16-pentamethyl-5,9-dioxo-4,17-dioxabicyclo[14.1.0]heptadecane-3-carboxamide;

(34) [1S-[1R*,3R*,7R*,10S*,11R*,12R*,16S*]]-N-Phenyl-7,11-dihydroxy-8,8,10,12-tetramethyl-5,9-dioxo-4,17-dioxabicyclo[14.1.0]heptadecane-3-carboxamide;

5

(35) [4S-[4R*,7S*,8R*,9R*,15R*]]-N-Phenyl-4,8-dihydroxy-5,5,7,9,13-pentamethyl-2,6-dioxo-1-oxa-13-cyclohexadecene-16-carboxamide;

(36) 10 [4S-[4R*,7S*,8R*,9R*,15R*]]-N-Phenyl-4,8-dihydroxy-5,5,7,9-tetramethyl-2,6-dioxo-1-oxa-13-cyclohexadecene-16-carboxamide.

(37) 15 [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)cyclopropyl]-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione.

(38) [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)cyclopropyl]-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione.

(39) 20 [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13-pentamethyl-16-[1-methyl-2-(2-hydroxymethyl-4-thiazolyl)ethenyl]-1-aza-13(Z)-cyclohexadecene-2,6-dione;

25 and the pharmaceutically acceptable salts, solvates and hydrates thereof.

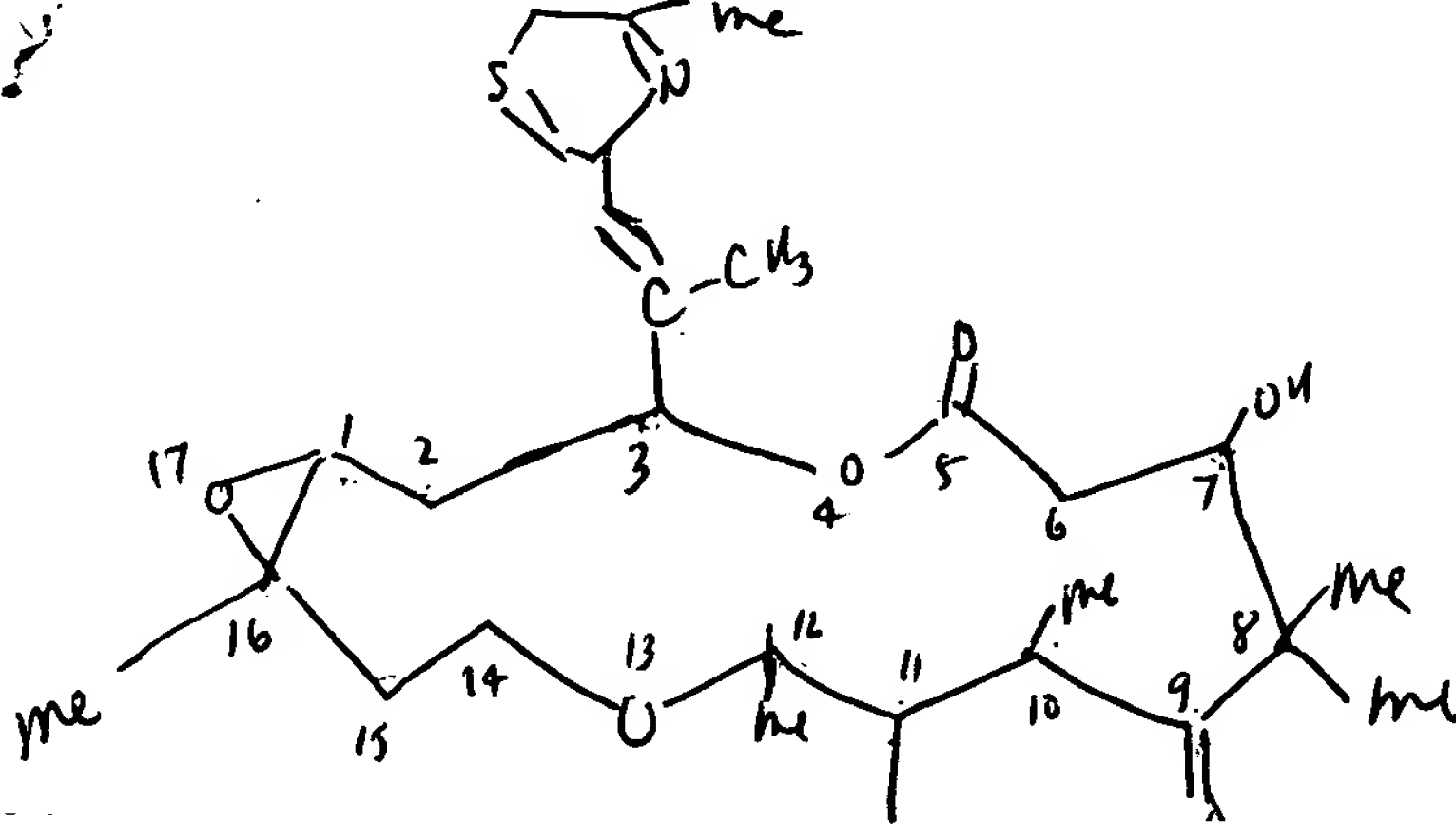
4. A method of treating cancer in a patient which comprises providing an effective amount of a compound of claim 1 to said patient.

30 5. A method of treating hyperproliferative cellular disease in a patient which comprises providing an effective amount of a compound of claim 1 to said patient.

6. A method of providing an antiangiogenic effect in a patient in need of said treatment which comprises providing an effective amount of a compound of claim 1 to said patient.

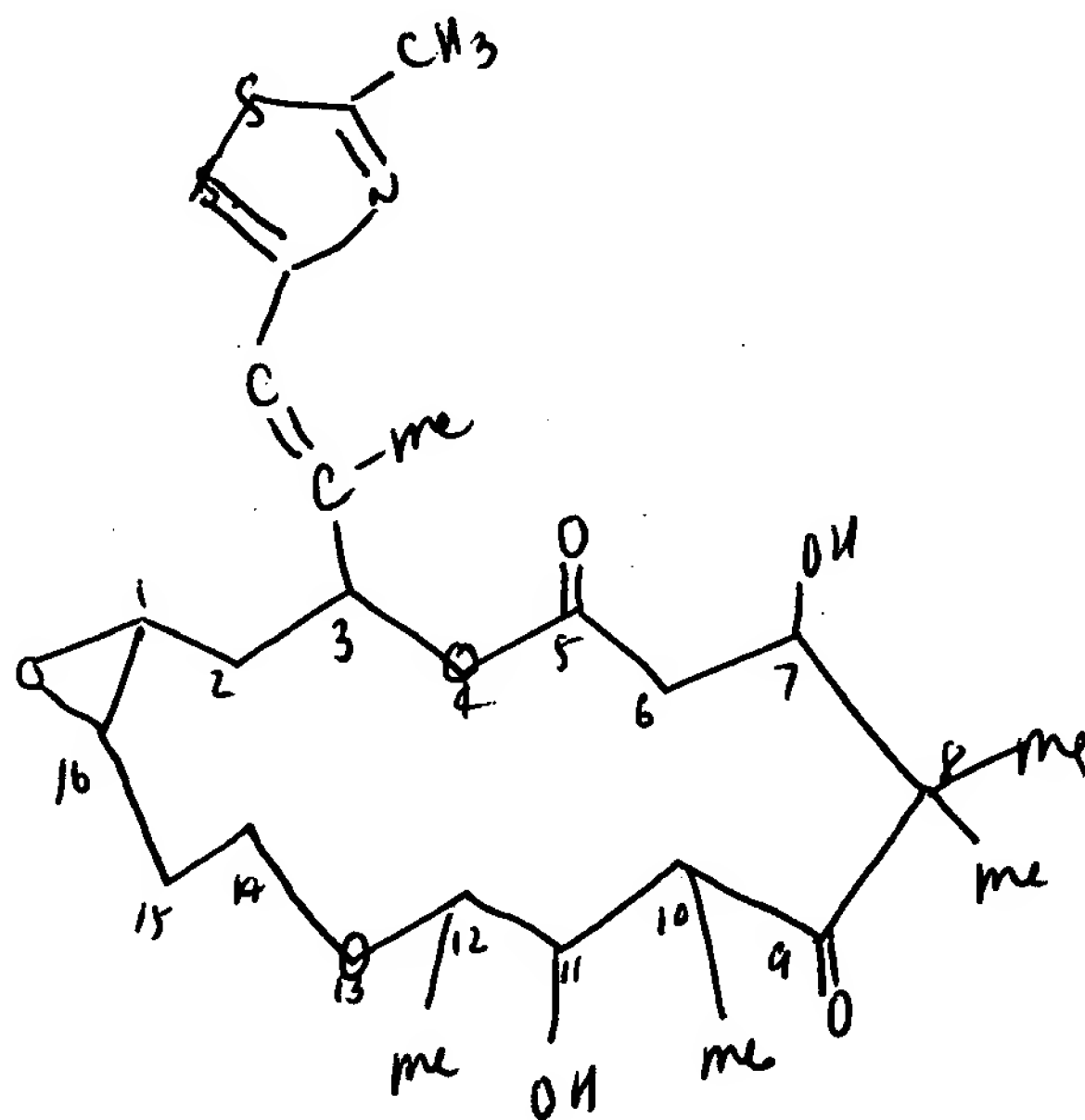


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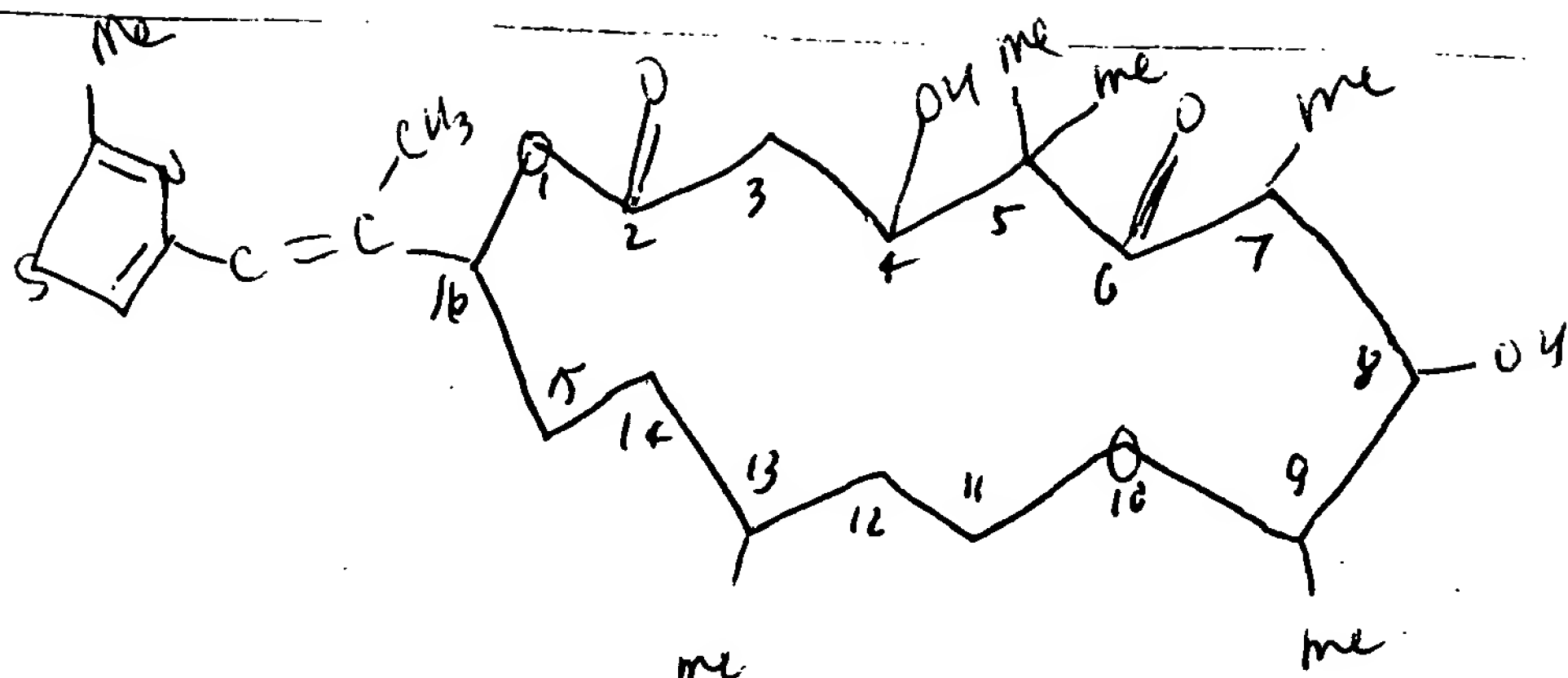


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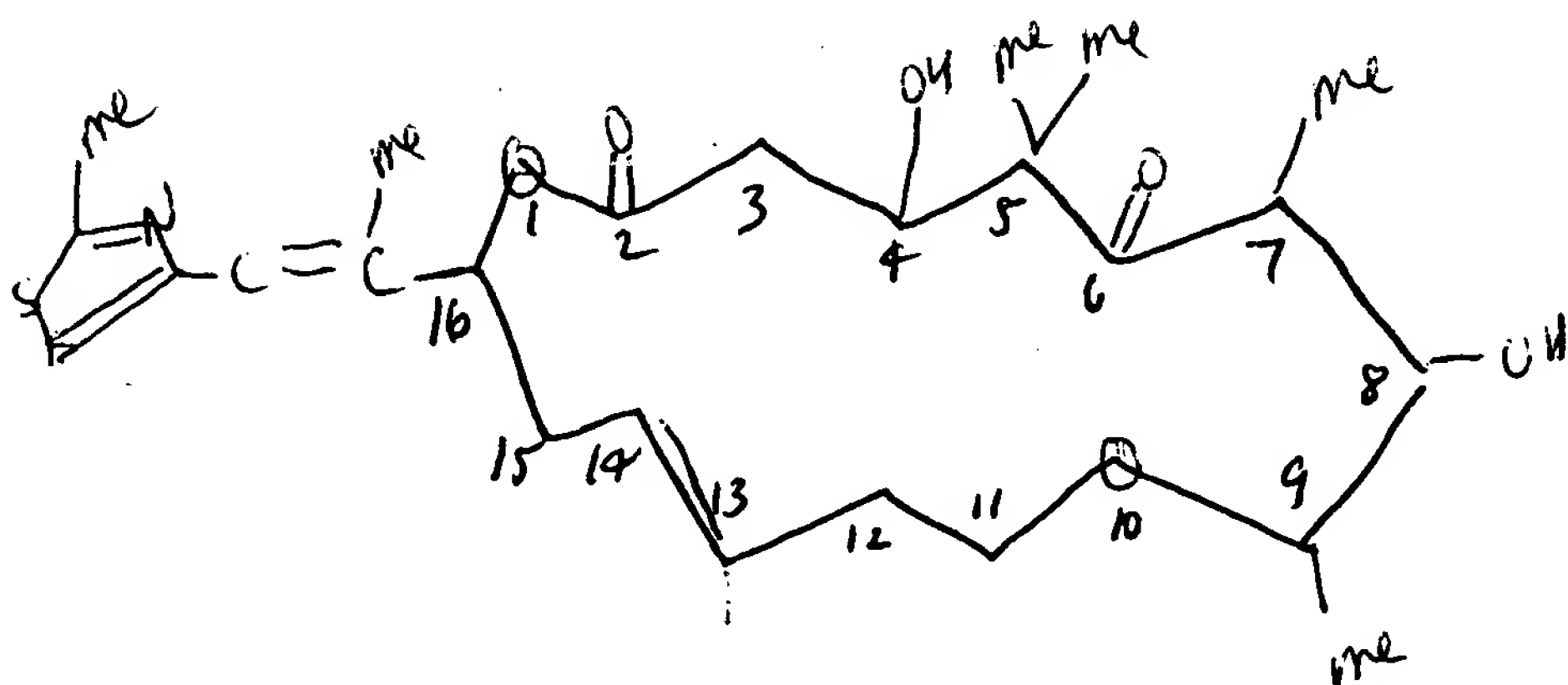
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OC6OC8/es

- ③ [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13-pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1,10-dioxo-13-cyclohexadecene-2,6-dione;

④

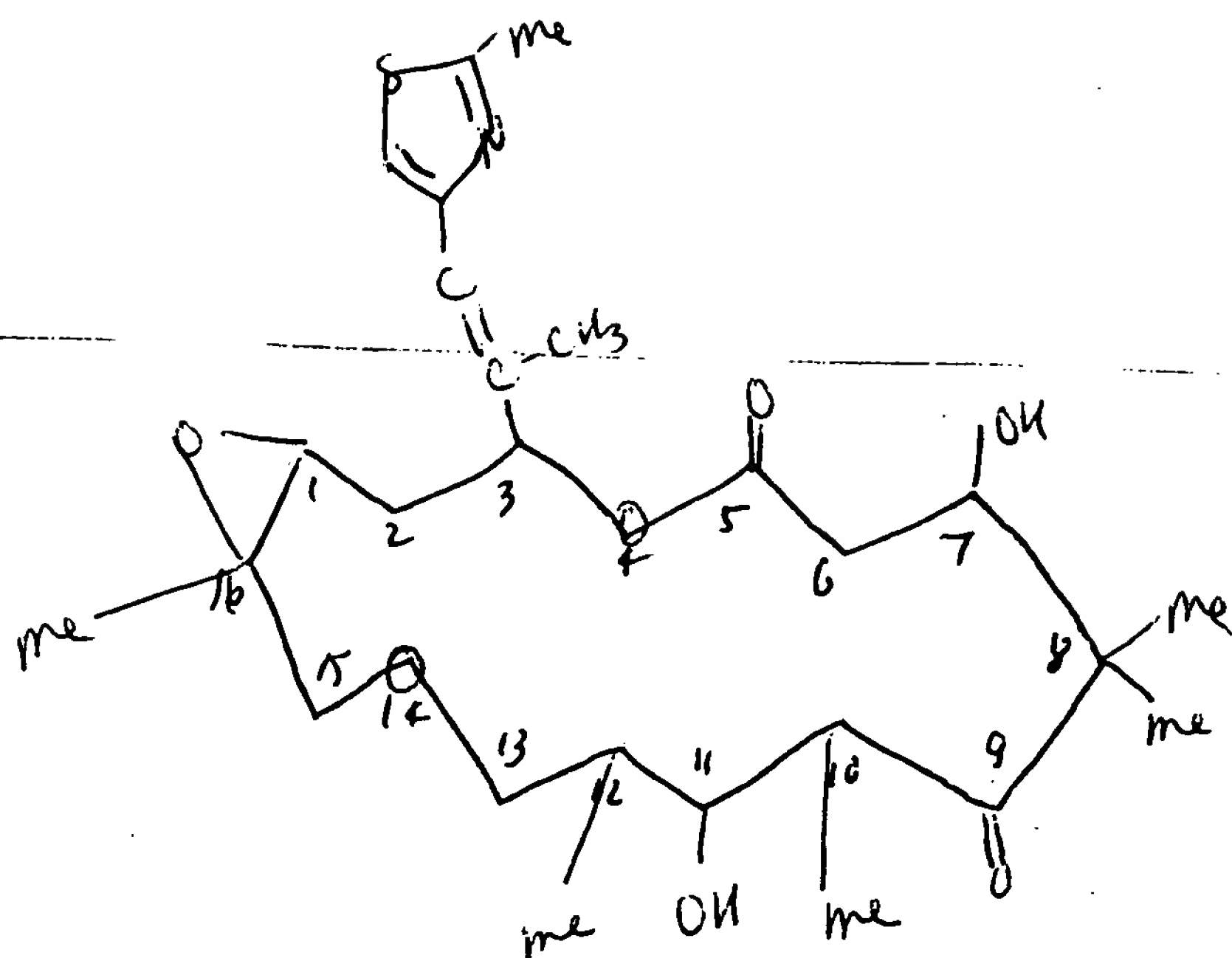


OC6OC8/es

- ④ [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9-tetramethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1,10-dioxo-13-cyclohexadecene-2,6-dione;

④

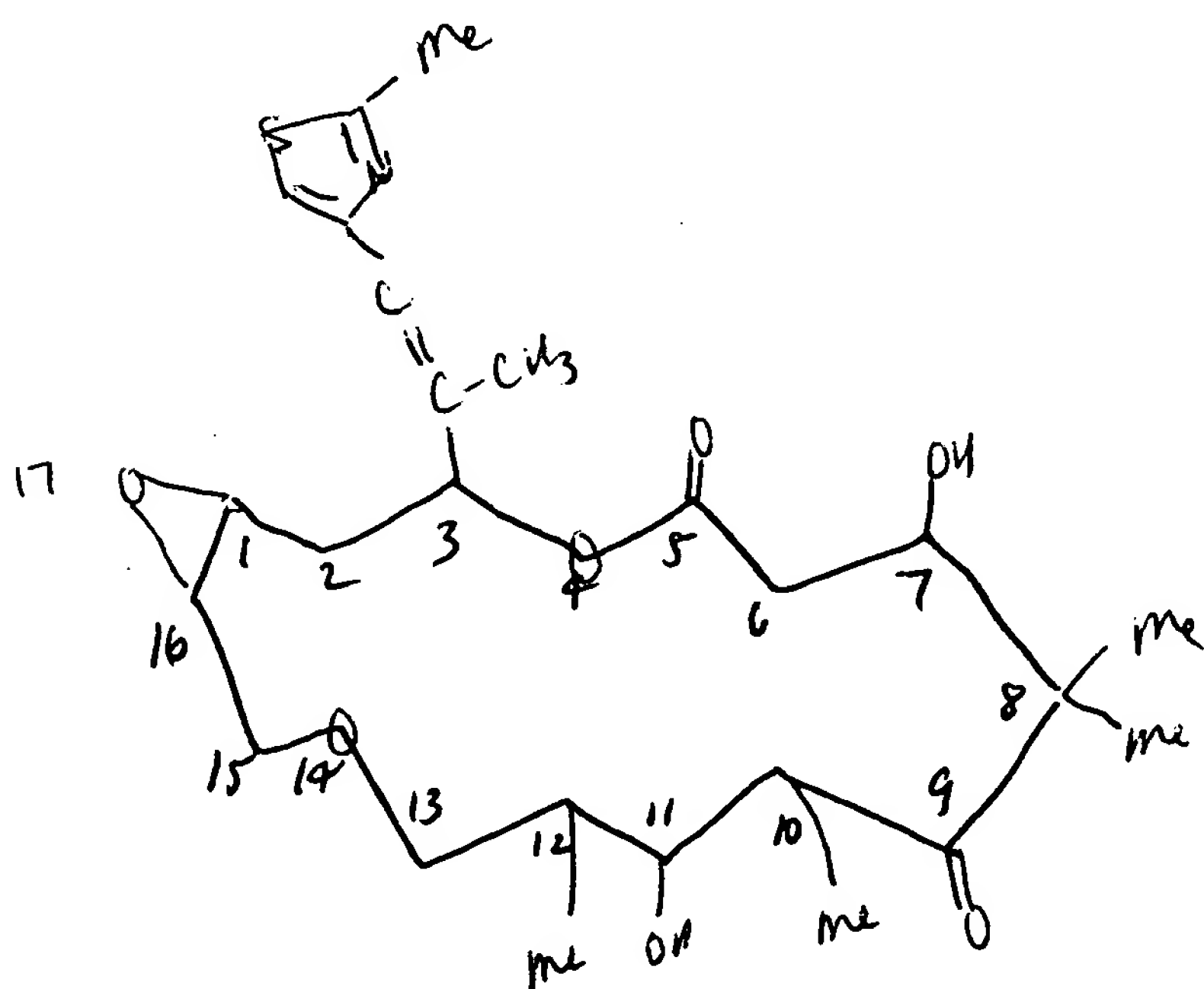
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OC₂-OC₅-OC₉/es

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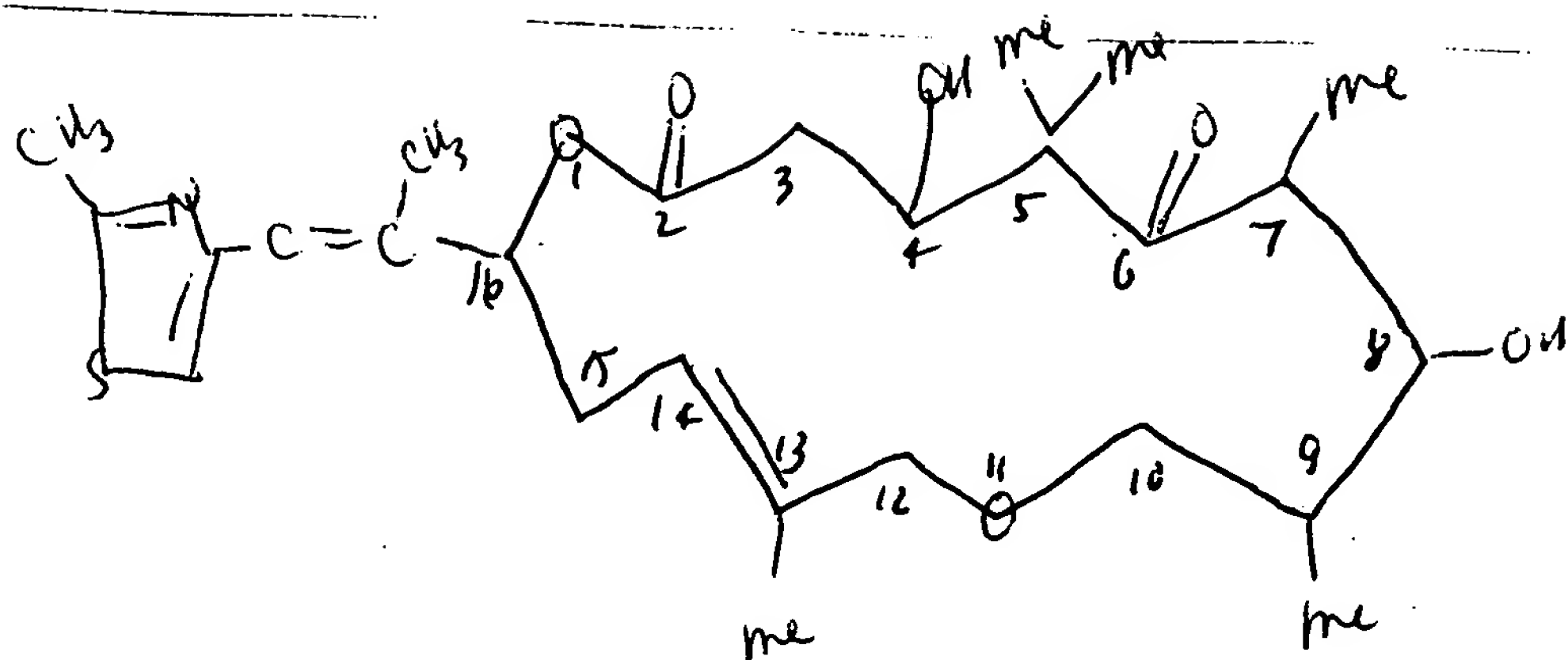
- (5) [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,14,17-trioxabicyclo[14.1.0]heptadecane-5,9-dione;

b

OC₂-OC₅-OC₉/es

- 30 (6) [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,14,17-trioxabicyclo[14.1.0]heptadecane-5,9-dione;

⑦

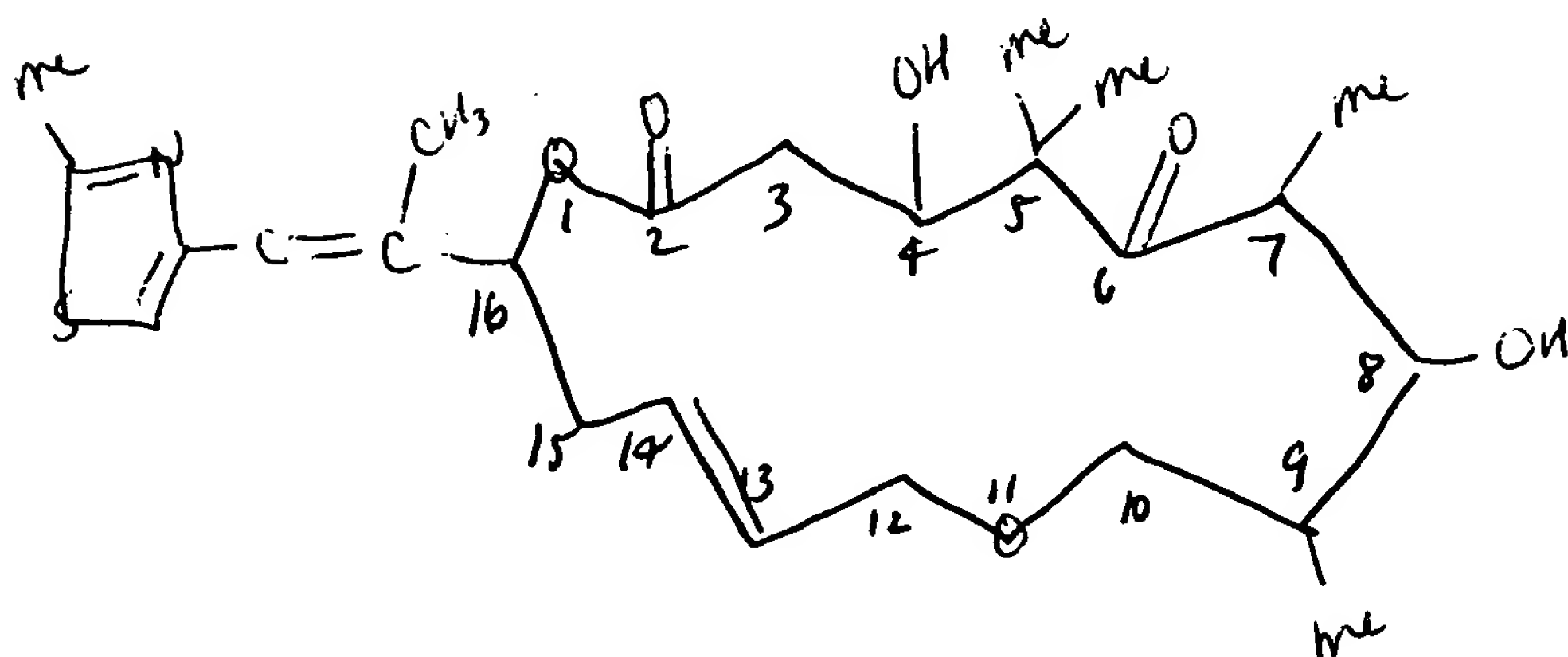


OC5OC9/es

⑦

[4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13-pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1,11-dioxo-13-cyclohexadecene-2,6-dione;

⑧



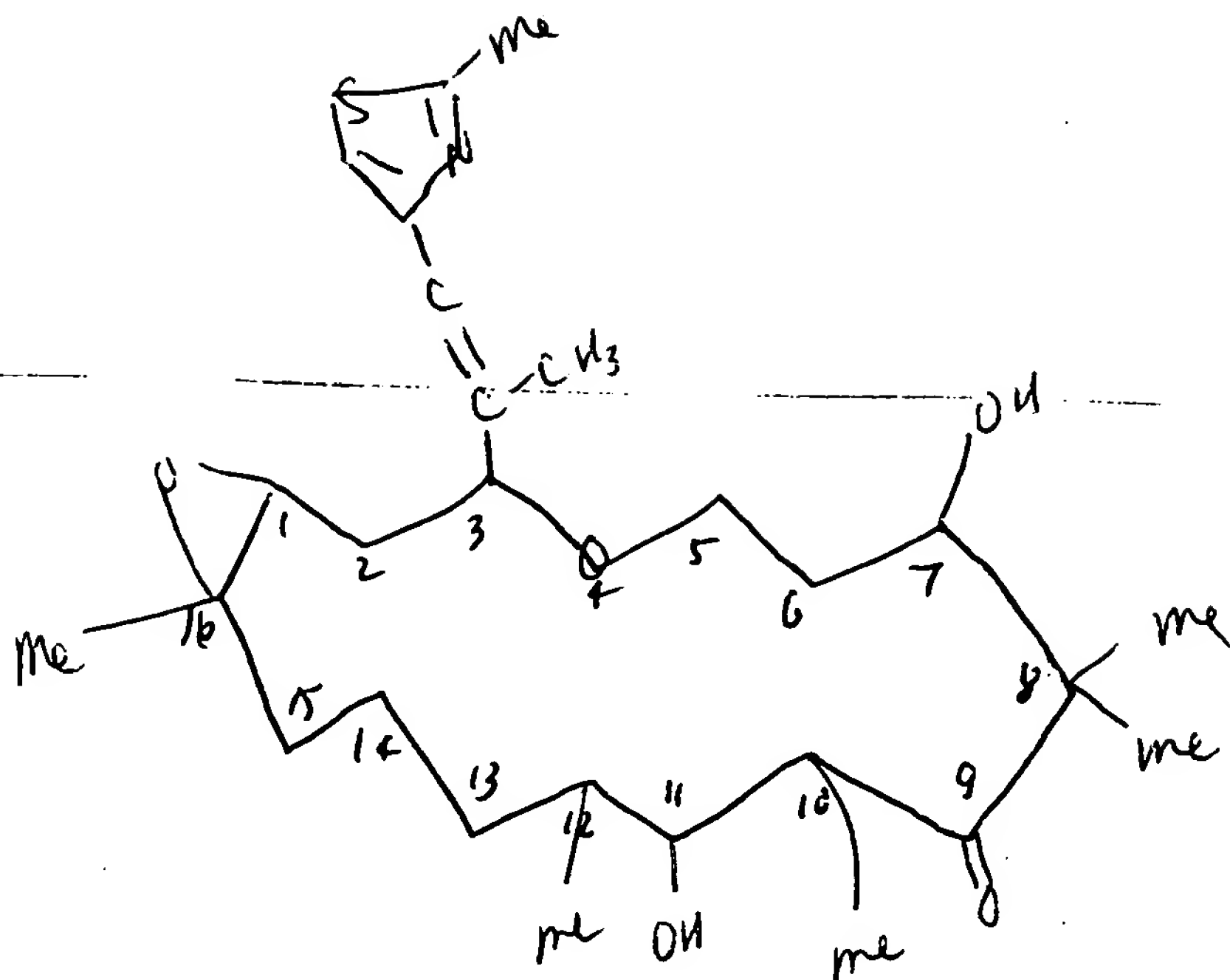
OC5OC9/es

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[4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9-tetramethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1,11-dioxo-13-cyclohexadecene-2,6-dione;

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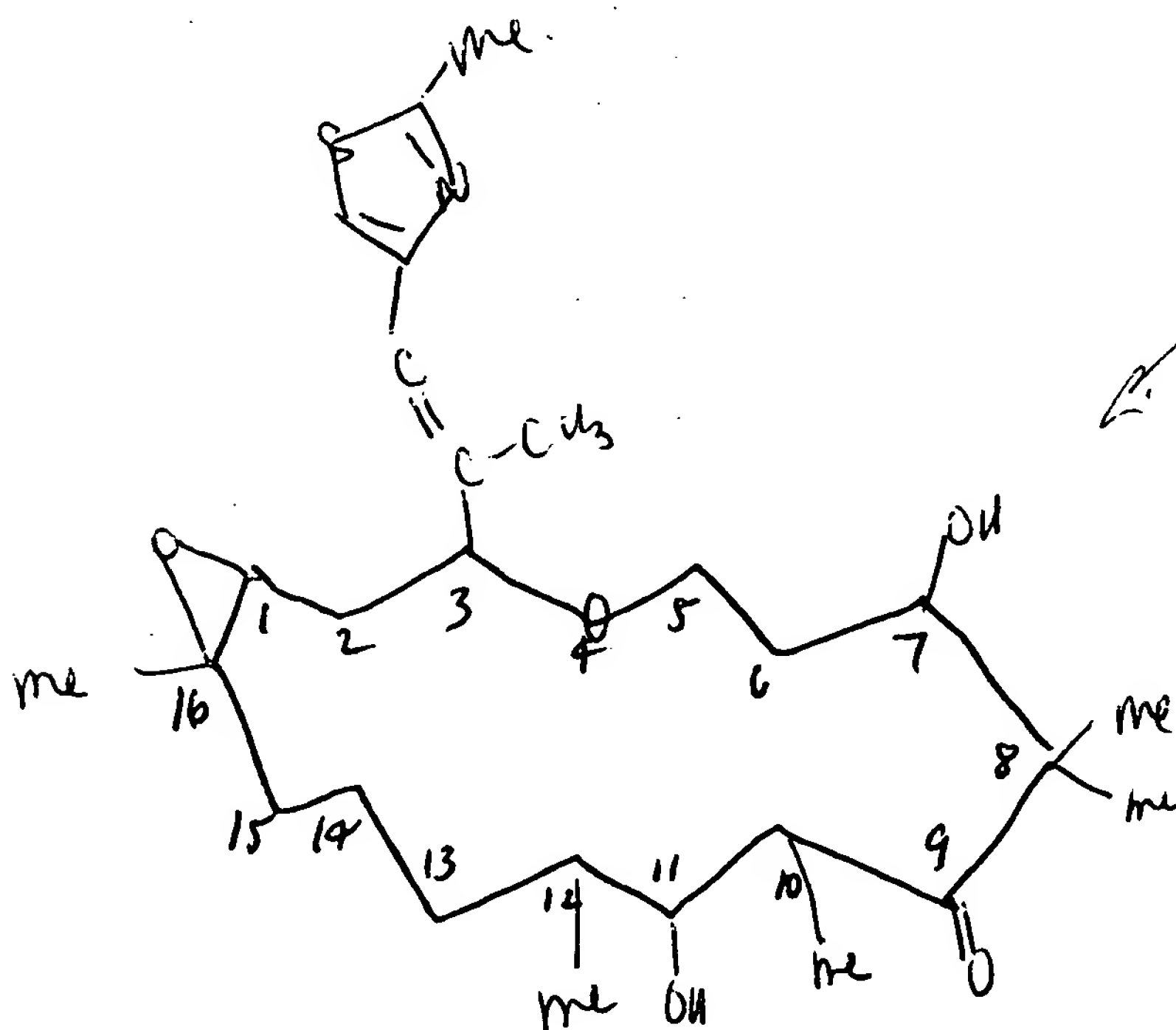
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OC₂-OC₁₅/es

- 10 [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,17-dioxabicyclo[14.1.0]heptadecane-9-one;

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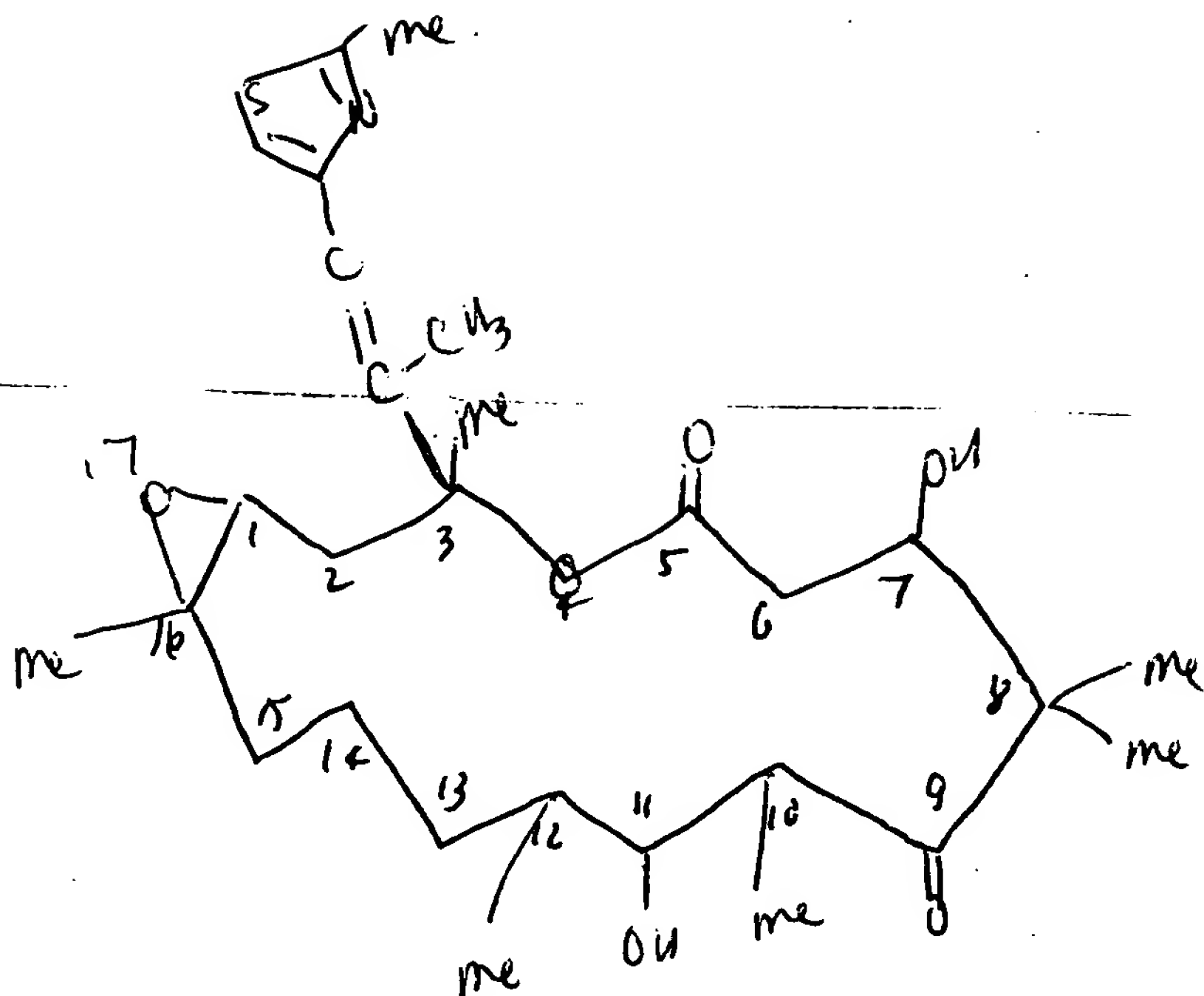
only 1 one

OC₂-OC₁₅/es

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- 1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,17-dioxabicyclo[14.1.0]heptadecane-9-one;

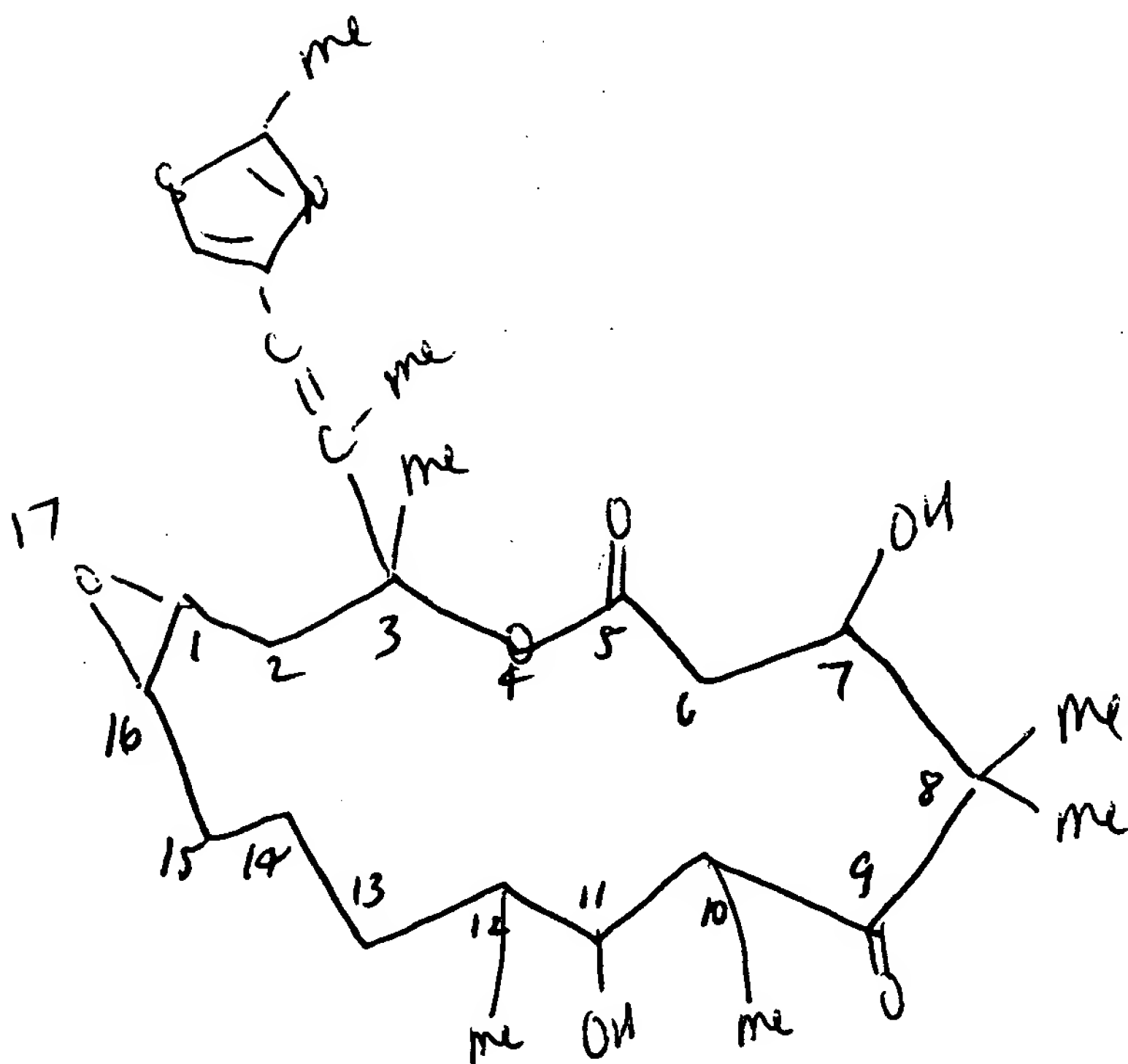
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OC2-OC15/es

- ⑪ [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-3,8,8,10,12,16-hexamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

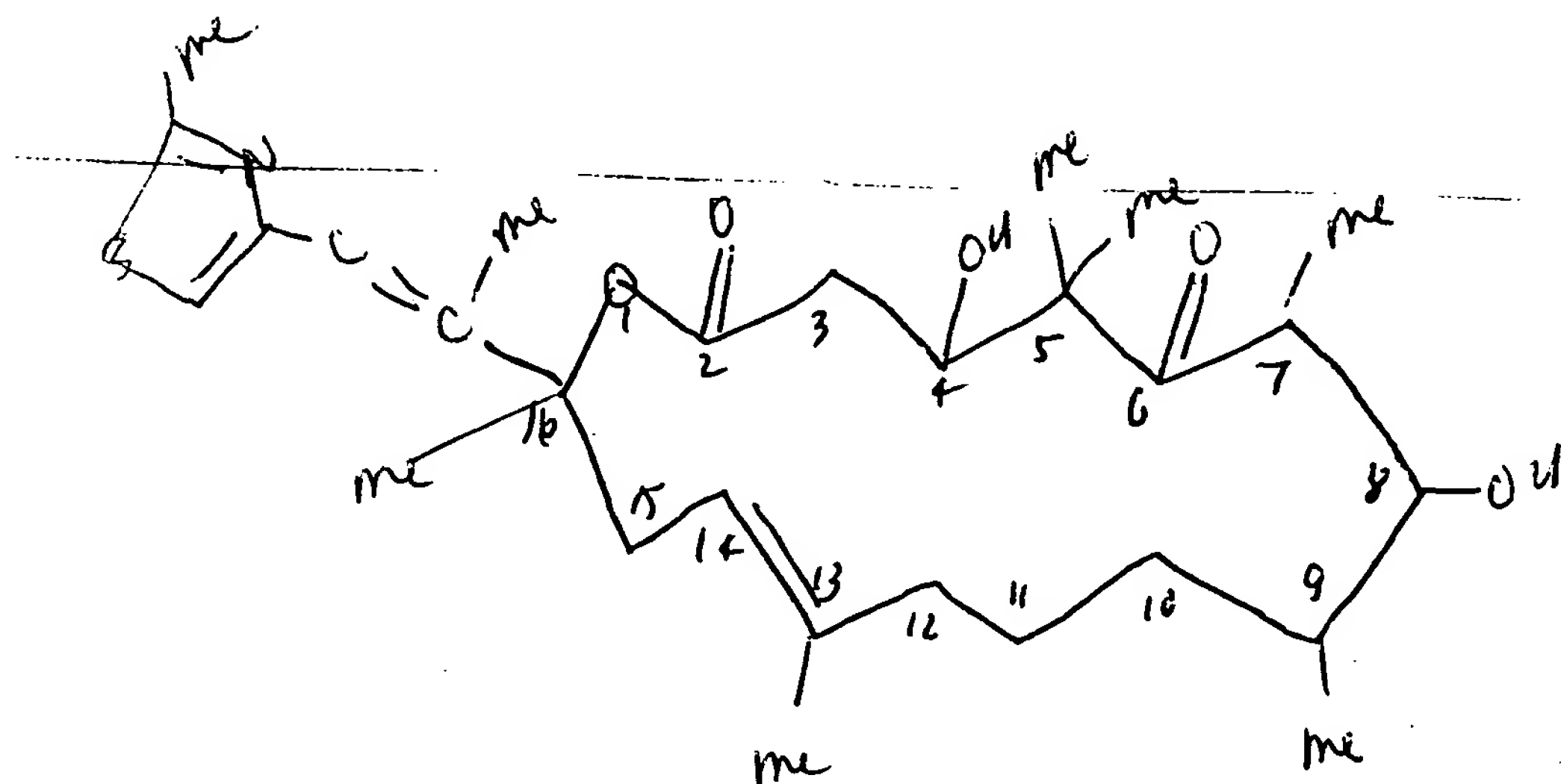
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OC2-OC15/es

- ⑫ [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-3,8,8,10,12-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

(13)



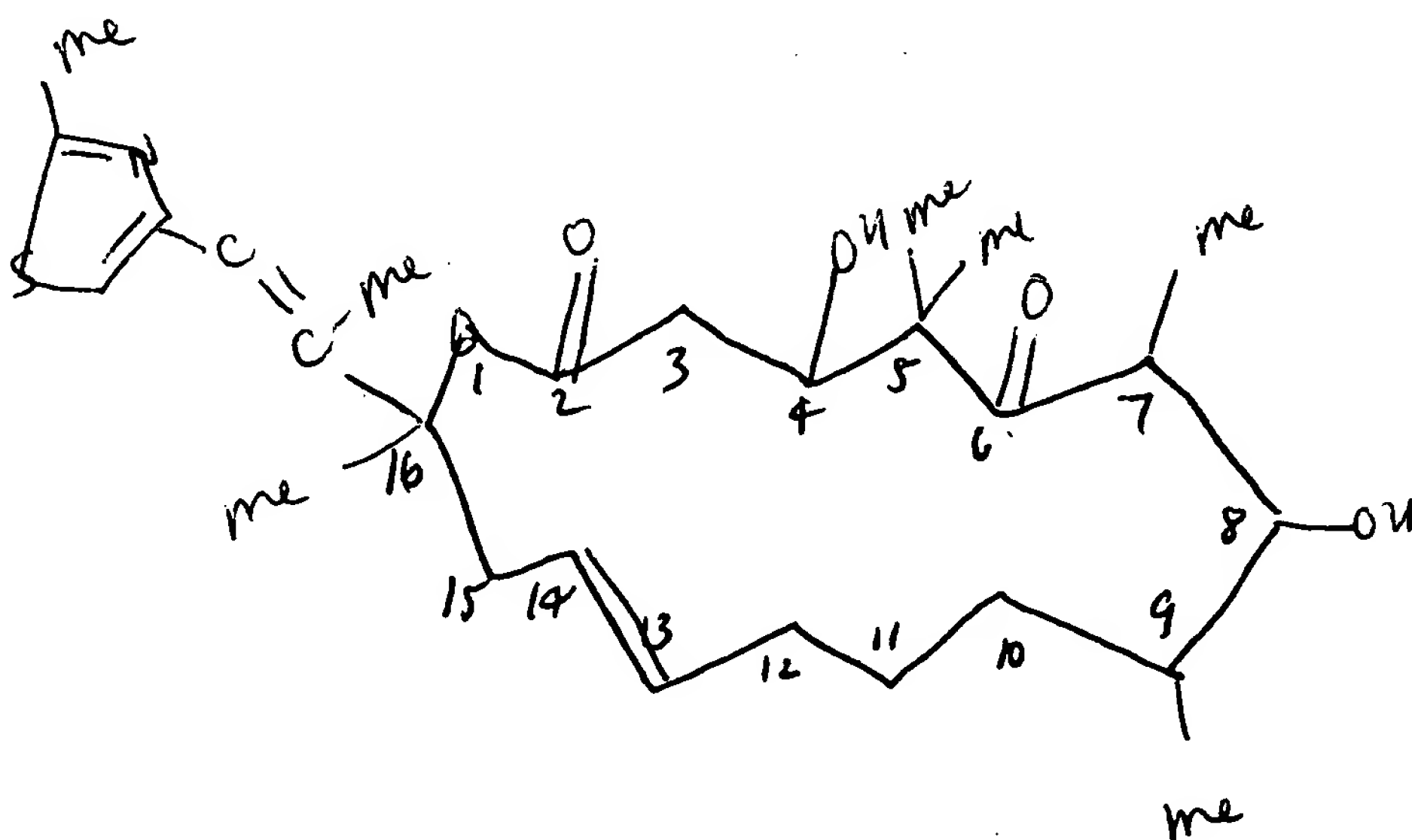
OC15/22

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(13)

[4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13,16-hexamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1-oxa-13-cyclohexadecene-2,6-dione;

(14)



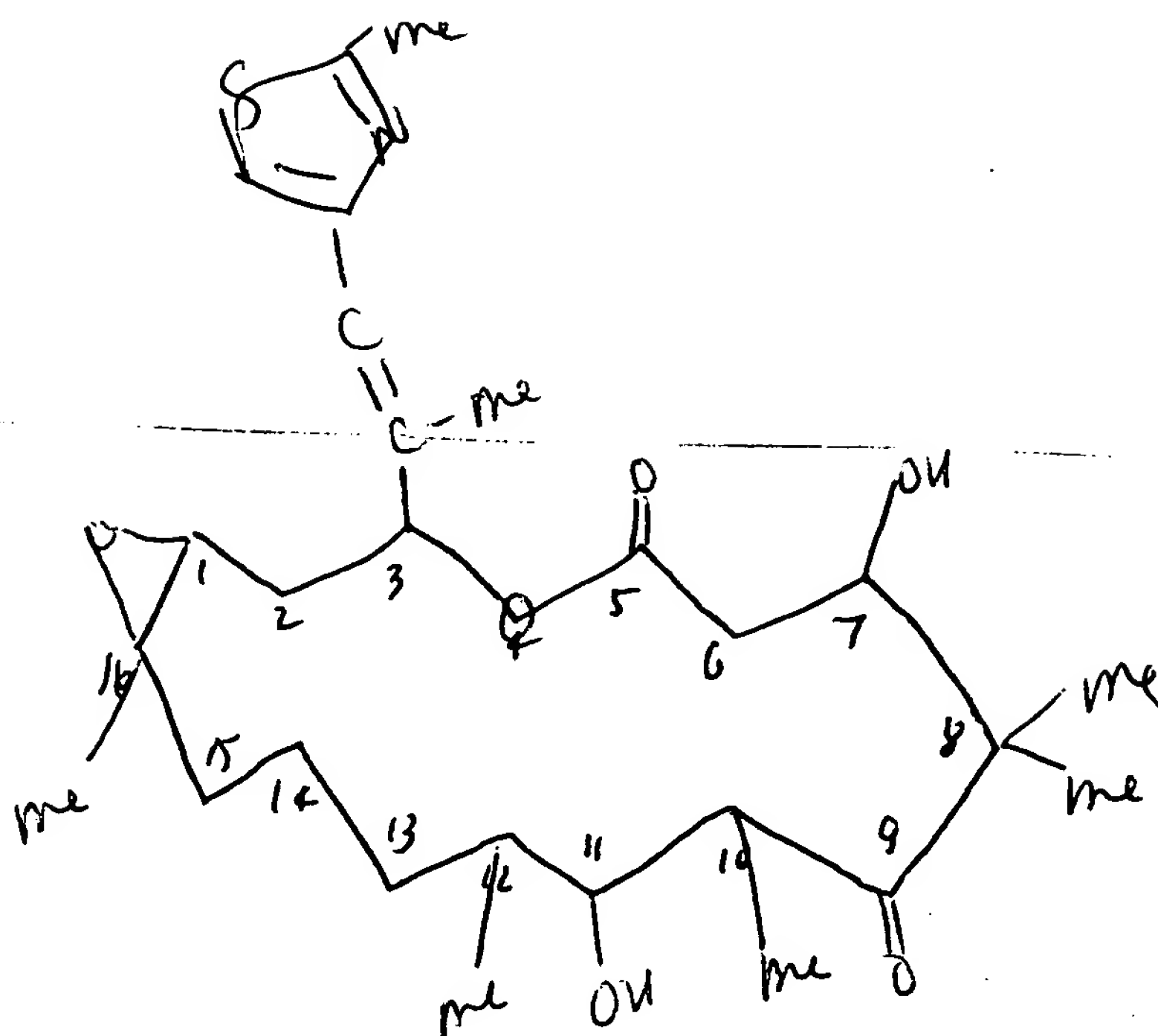
OC15/22

30

[4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,16-pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1-oxa-13-cyclohexadecene-2,6-dione;

(14)

15.



OC2-OC15/es

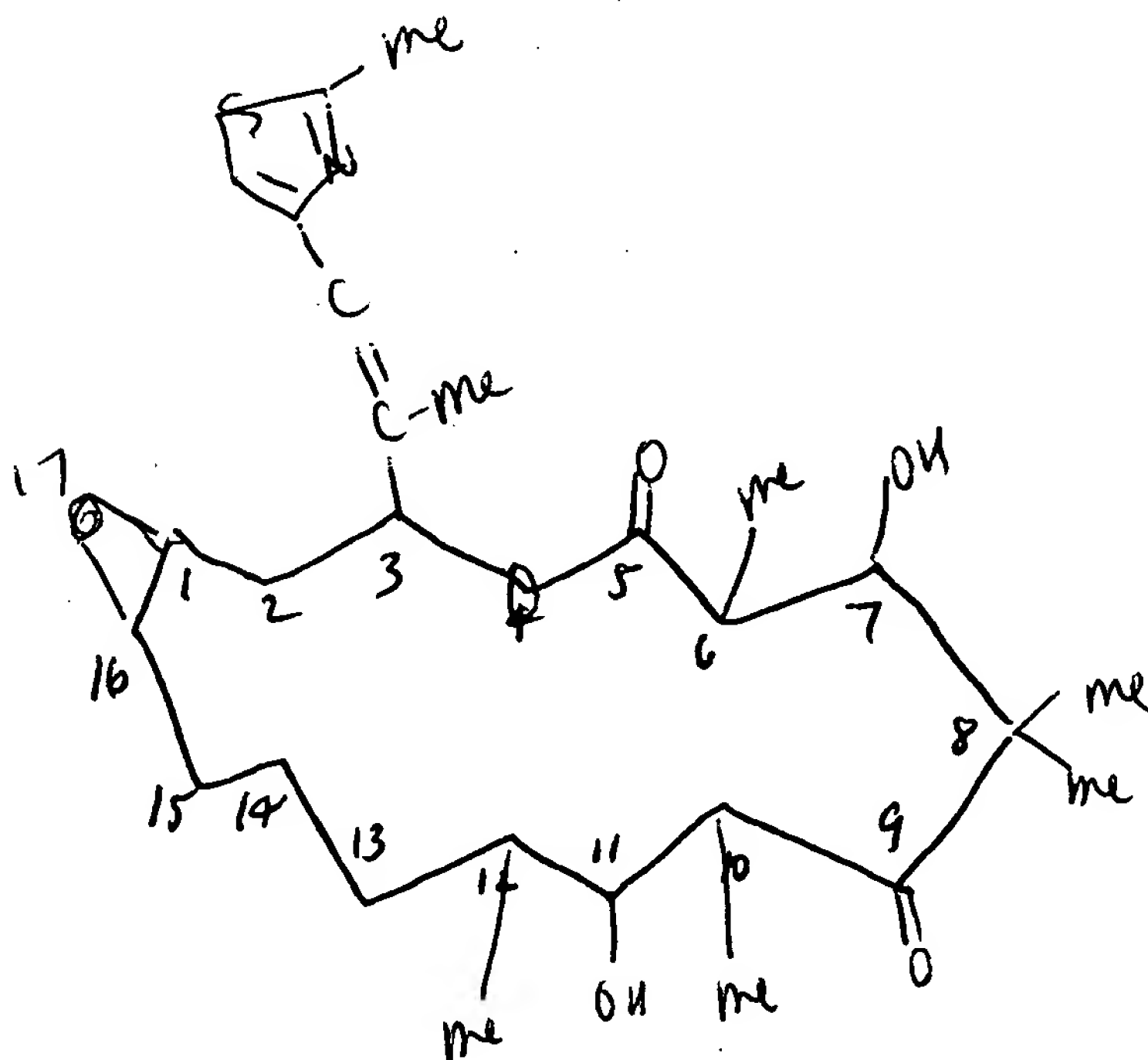
35

(15)

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

- 64 -

16

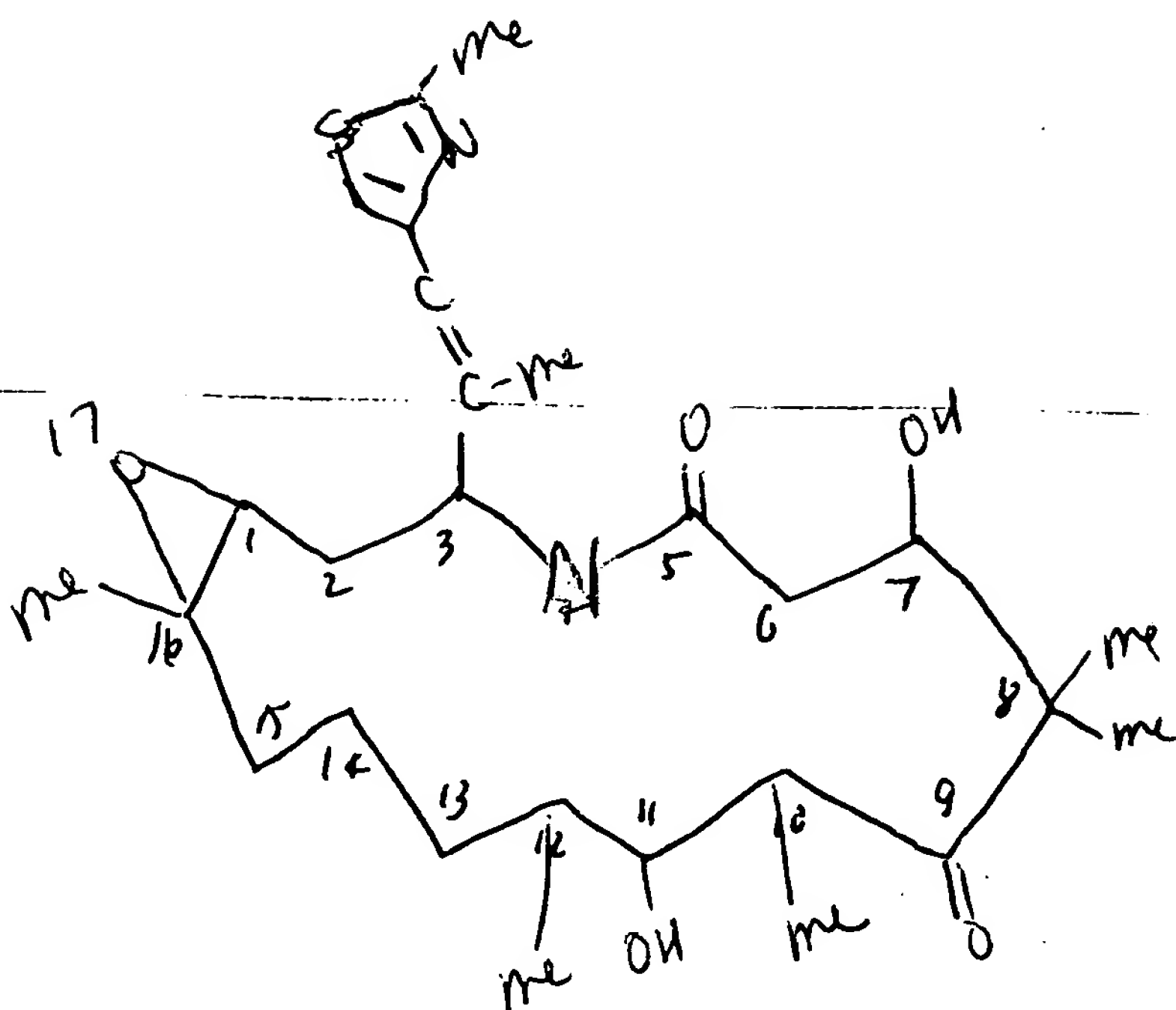


OC2-OC15/es

(16)

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-6,8,8,10,12-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

17



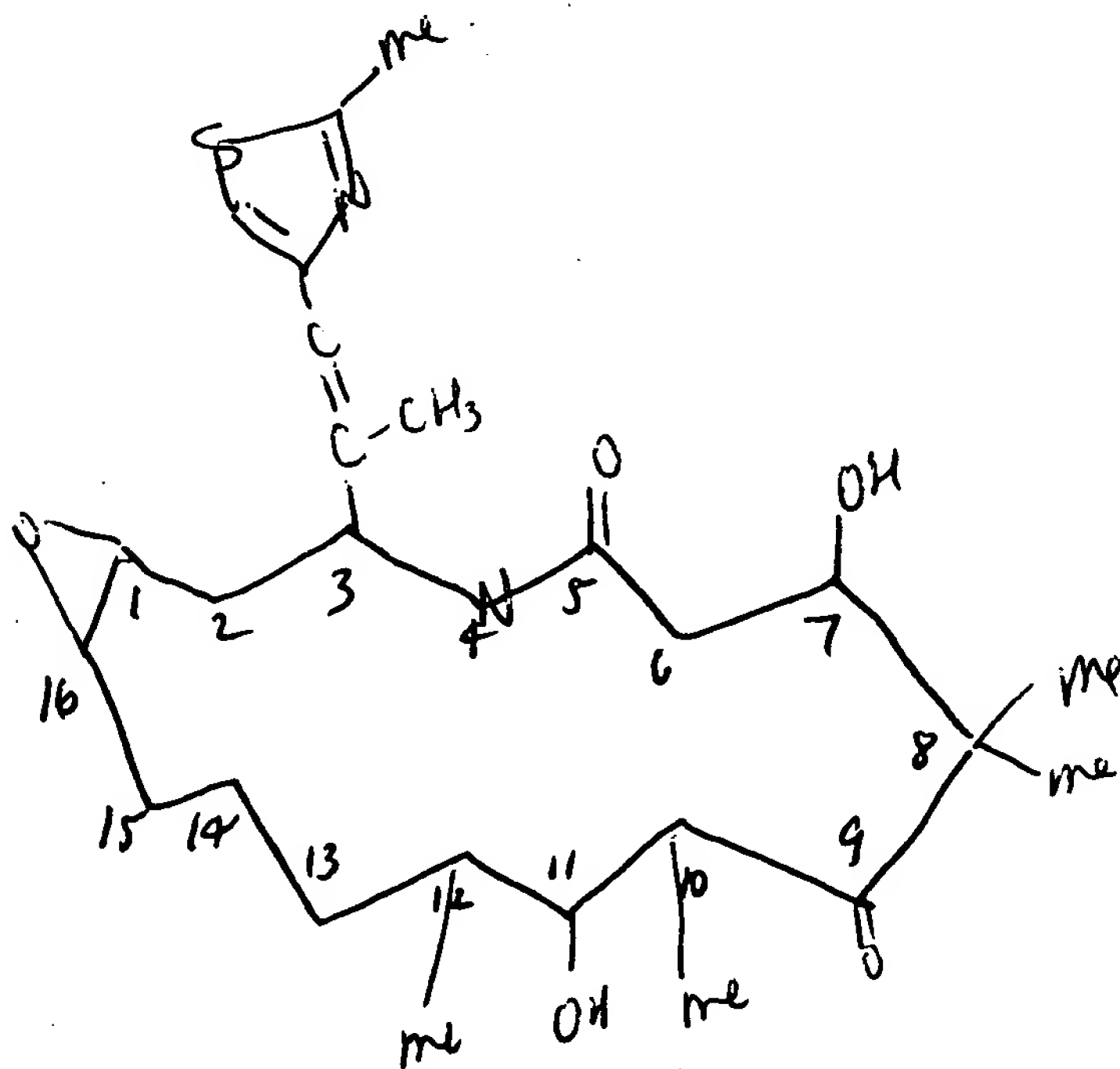
OC2-NC15/22

5

17

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4-aza-17-oxabicyclo[14.1.0]heptadecane-5,9-dione;

18



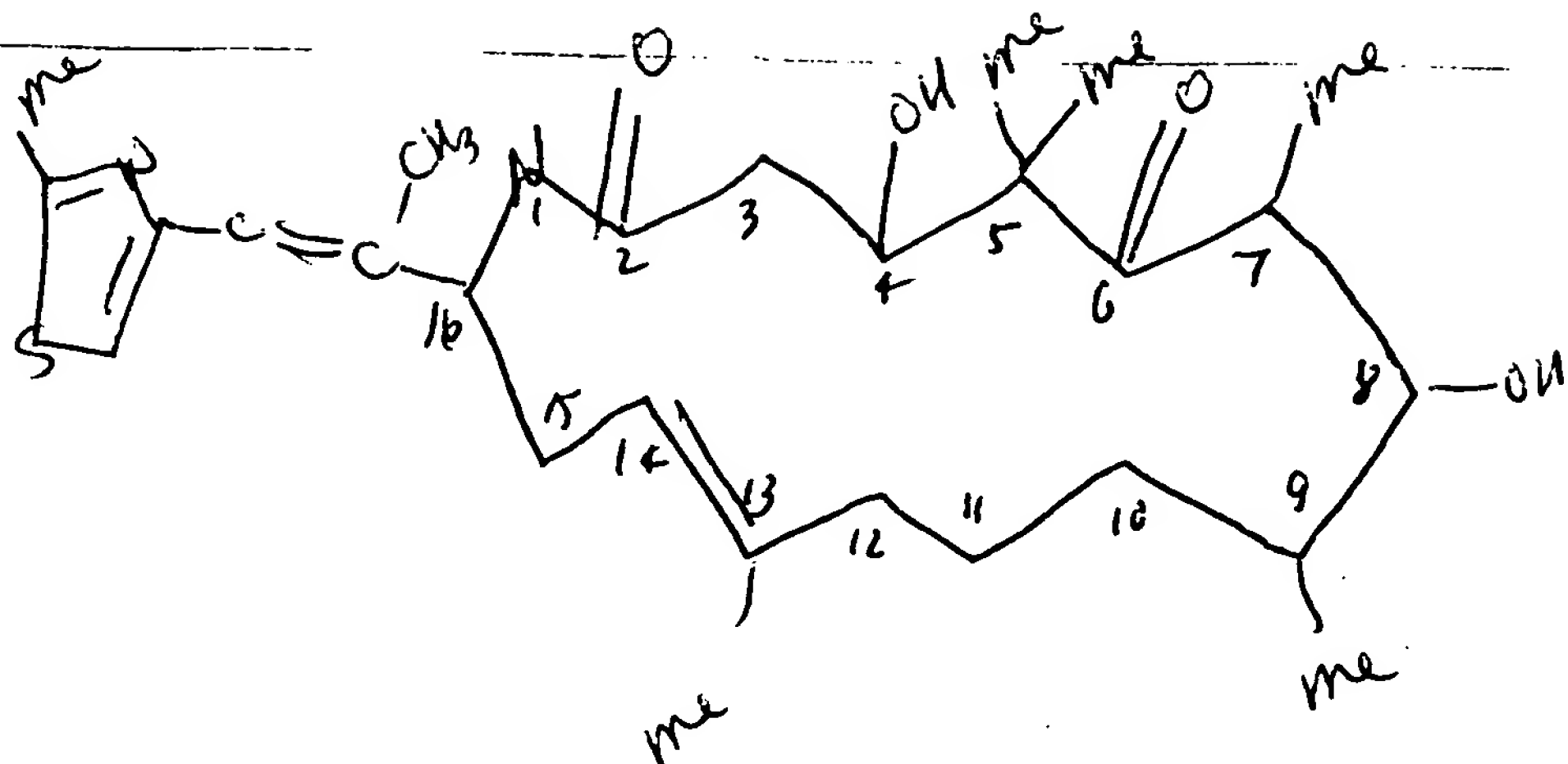
OC2-NC15/22

10

18

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4-aza-17-oxabicyclo[14.1.0]heptadecane-5,9-dione;

19

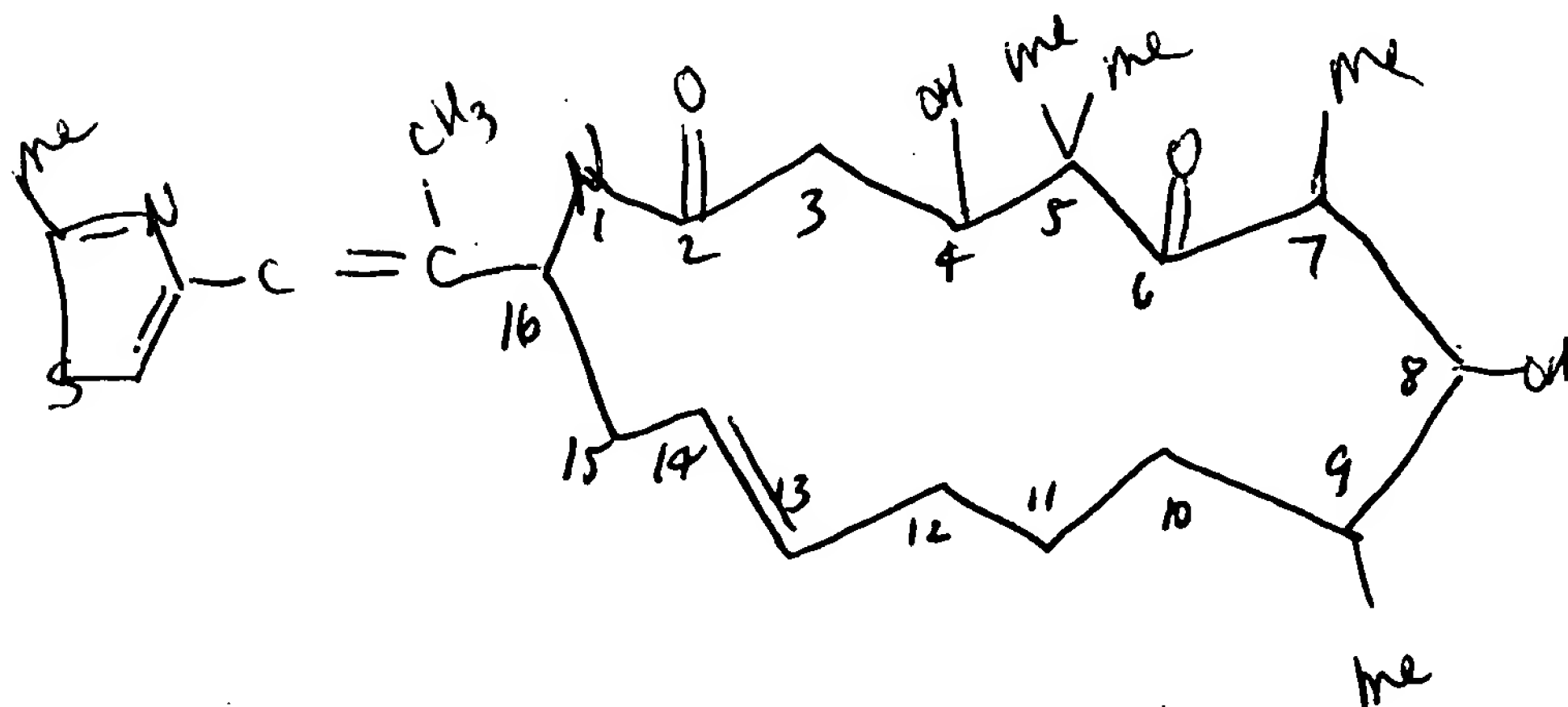


NC15/es

19

[4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13-pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1-aza-13-cyclohexadecene-2,6-dione;

20

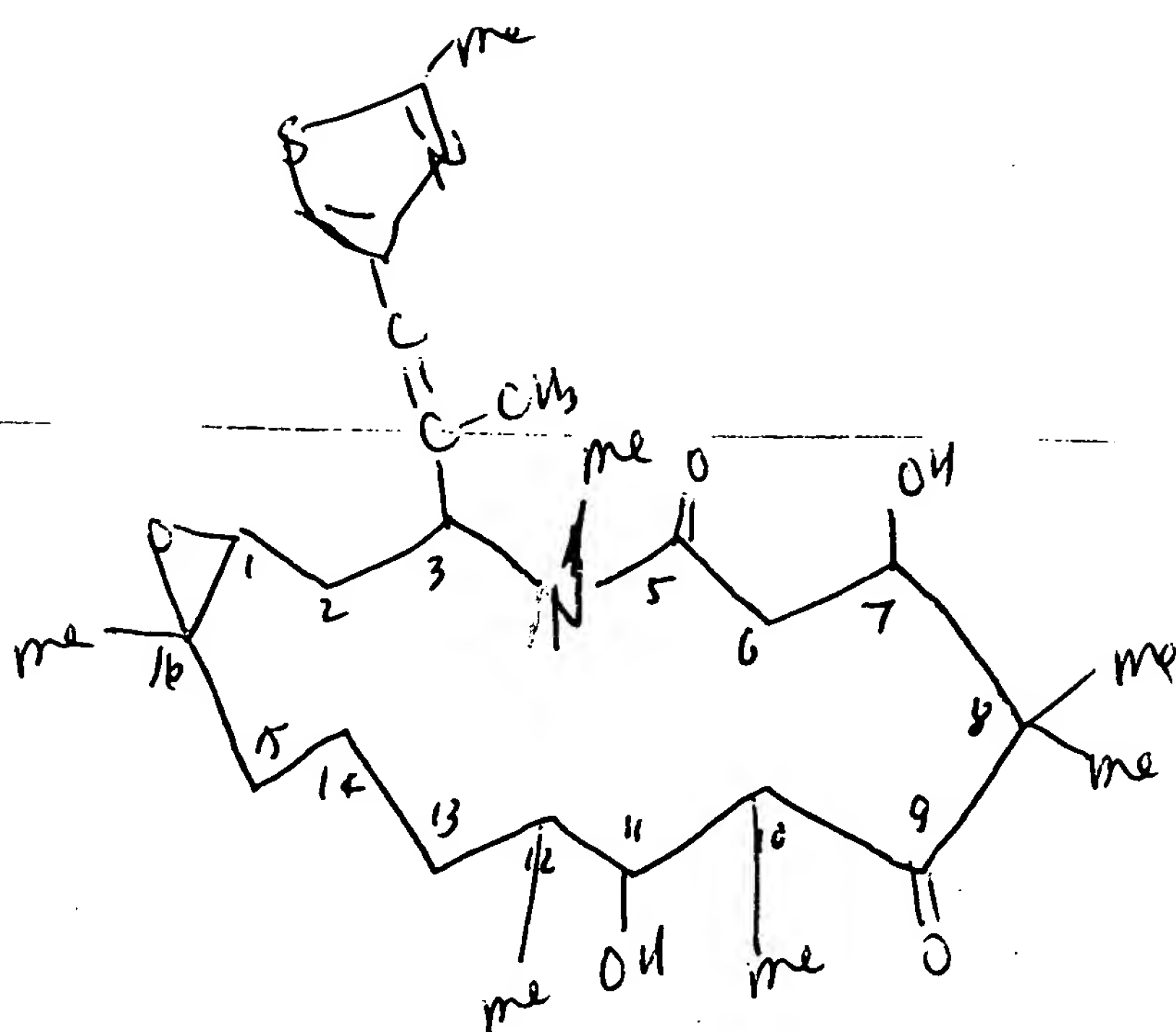


NC15/es

20

[4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9-tetramethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1-aza-13-cyclohexadecene-2,6-dione;

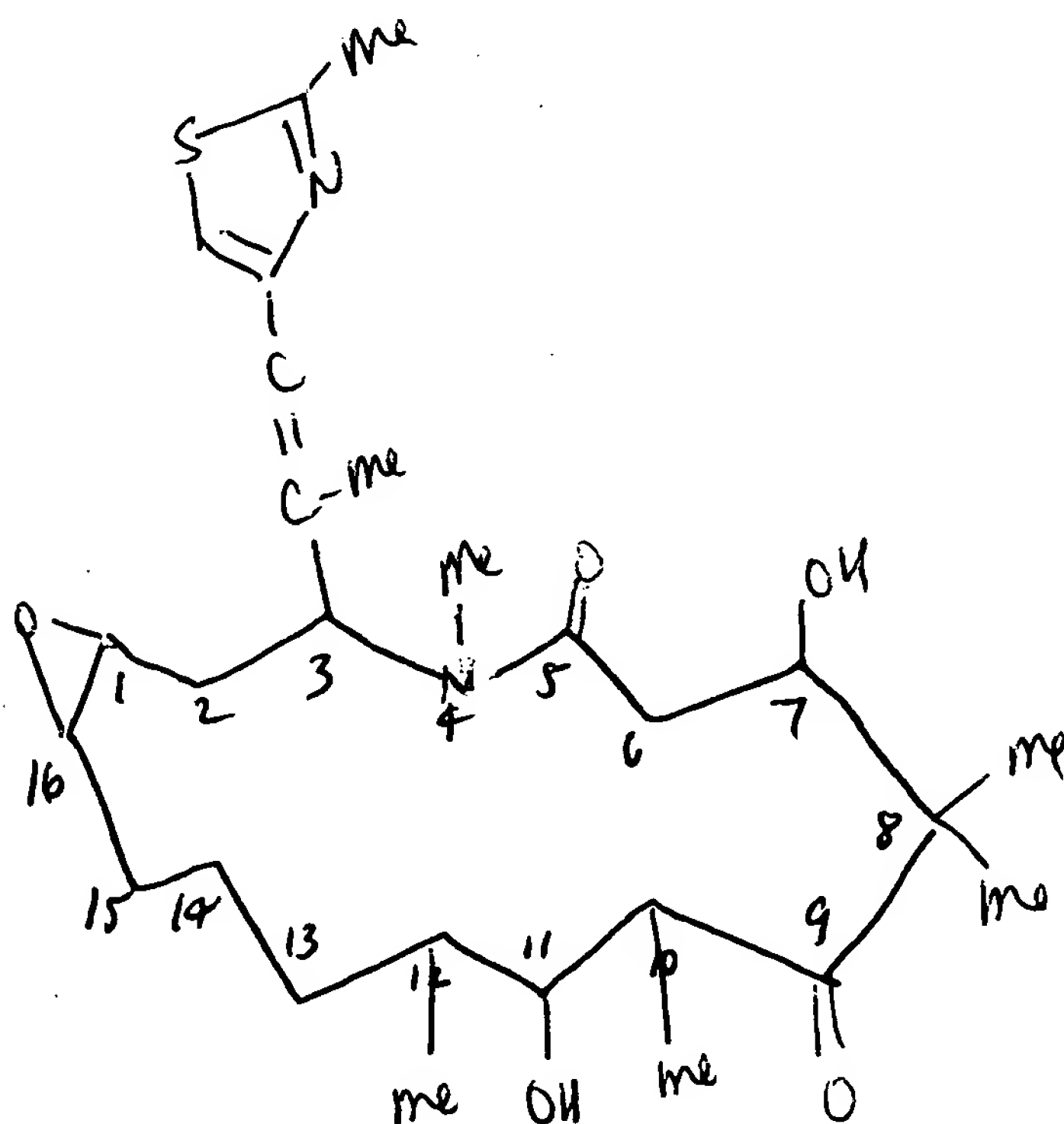
(21)



OC2-NC15/es

- ② [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-4,8,8,10,12,16-hexamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4-aza-17-oxabicyclo[14.1.0]heptadecane-5,9-dione;

(22)

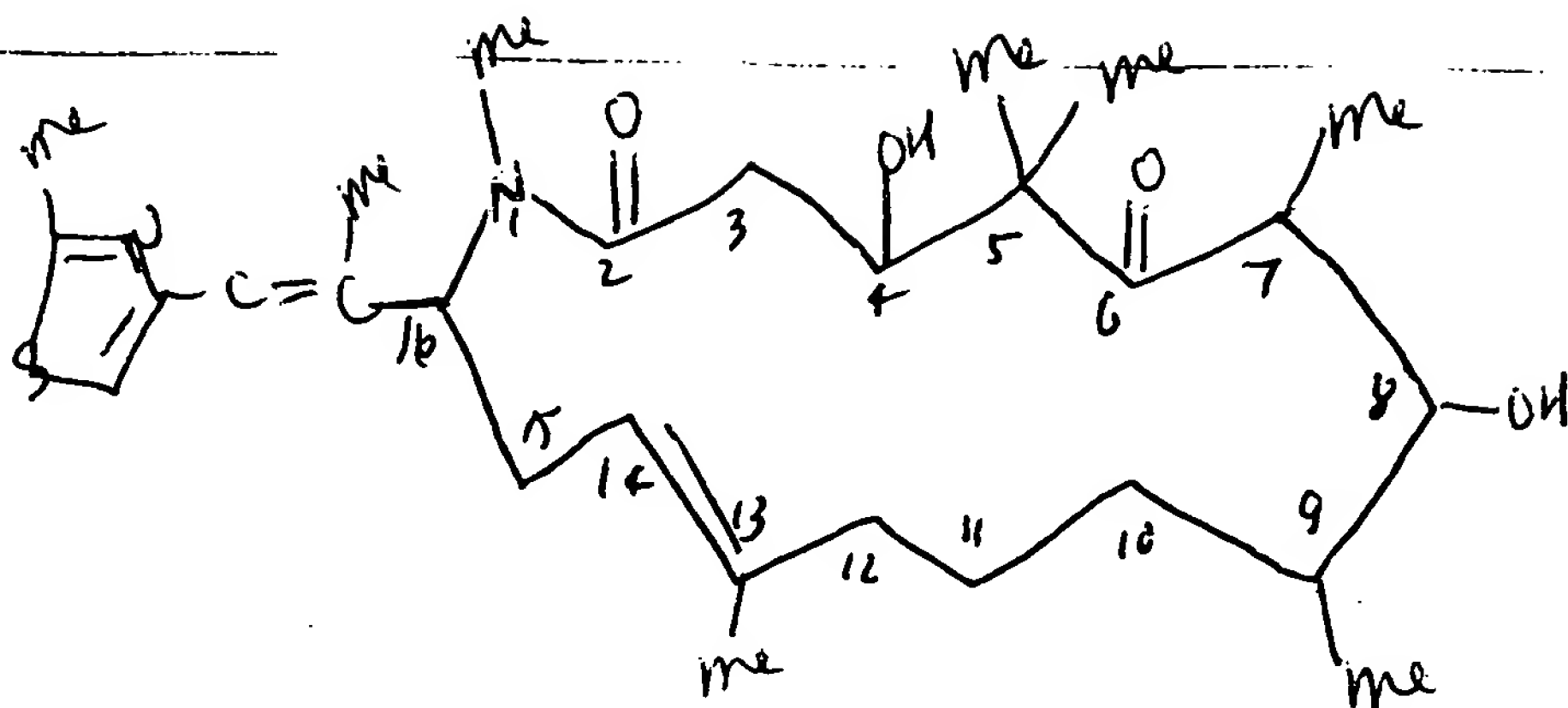


OC2-NC15/es

25

- ② [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-4,8,8,10,12-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4-aza-17-oxabicyclo[14.1.0]heptadecane-5,9-dione;

23

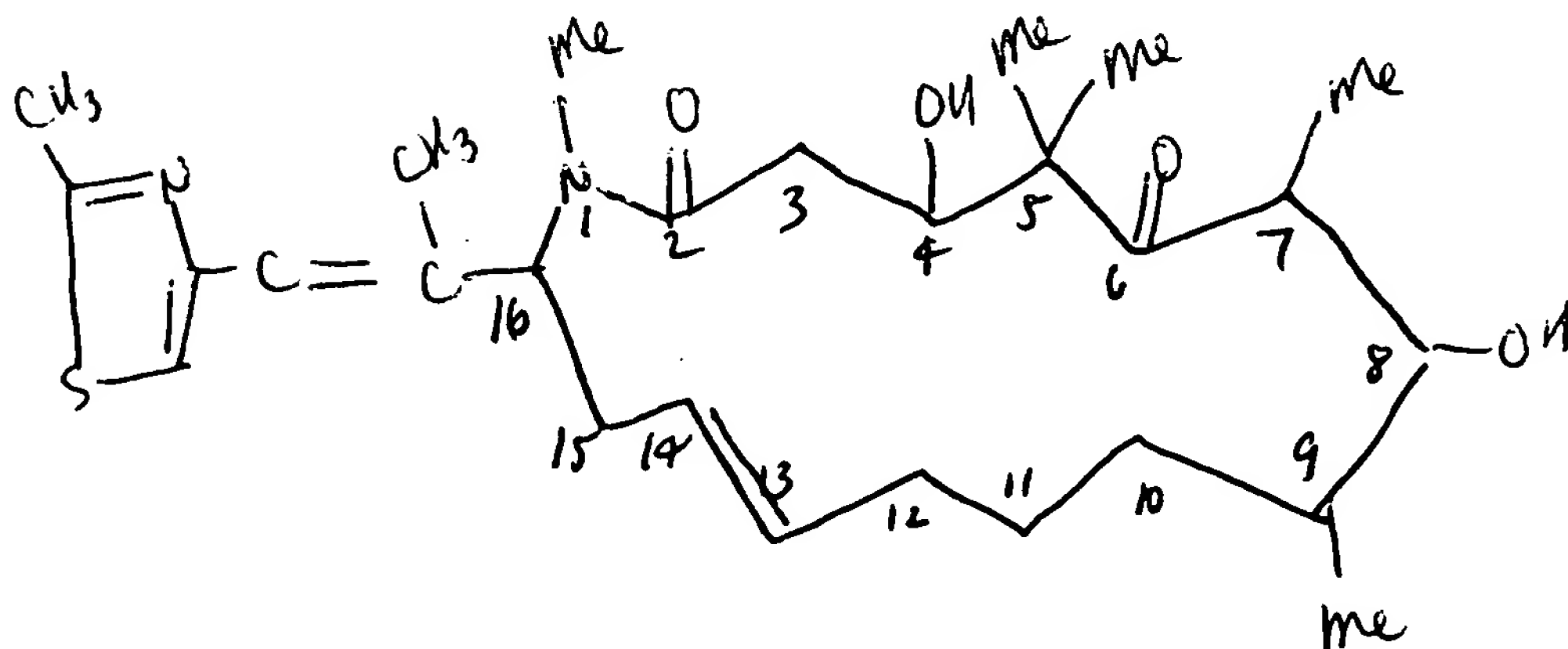


NCIS/es

NCIS/es

- 30 [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-1,5,5,7,9,13-hexamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1-aza-13-cyclohexadecene-2,6-dione;

24

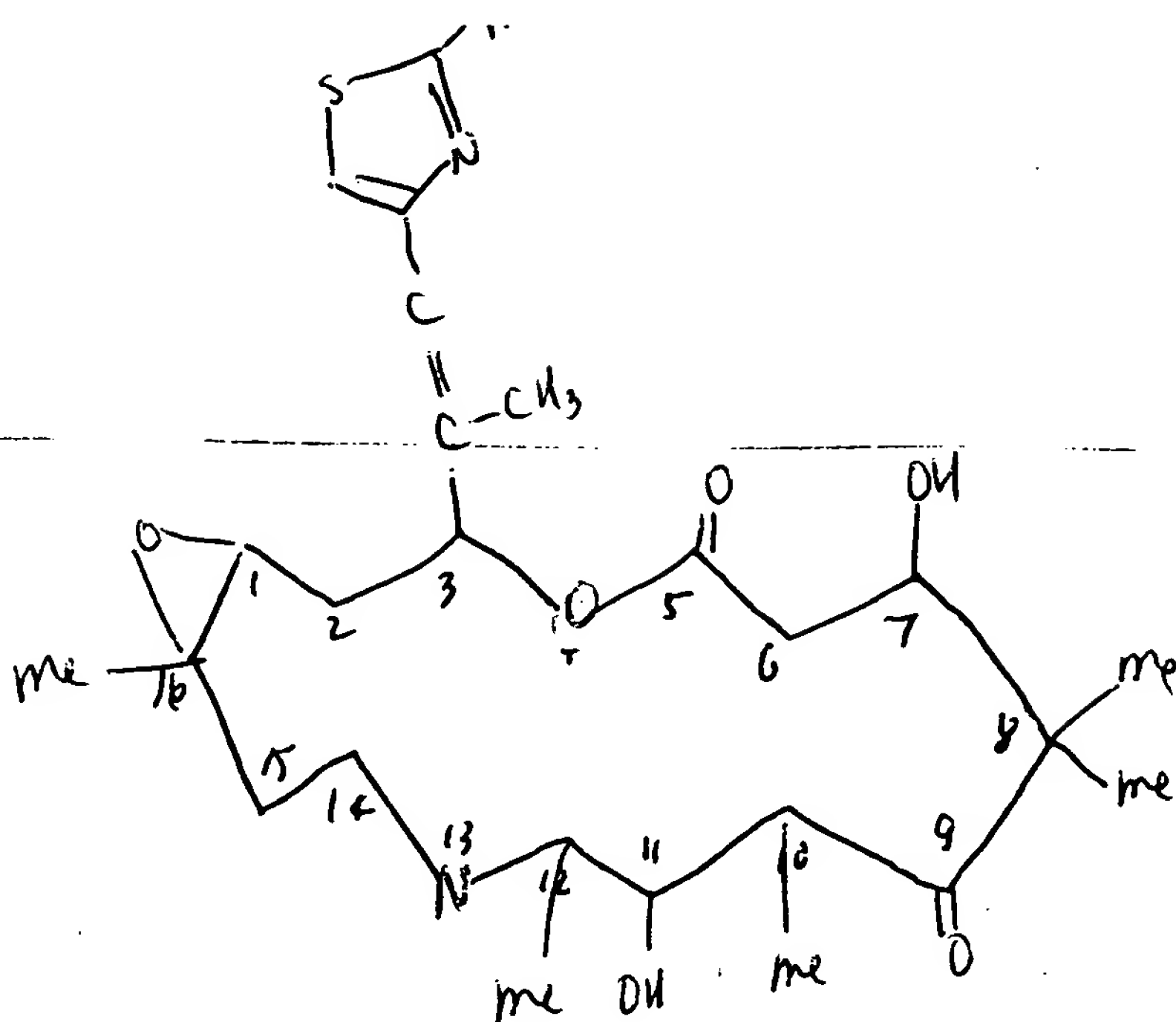


NCIS/es

- 35 [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-1,5,5,7,9-pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-1-aza-13-cyclohexadecene-2,6-dione;

25

25

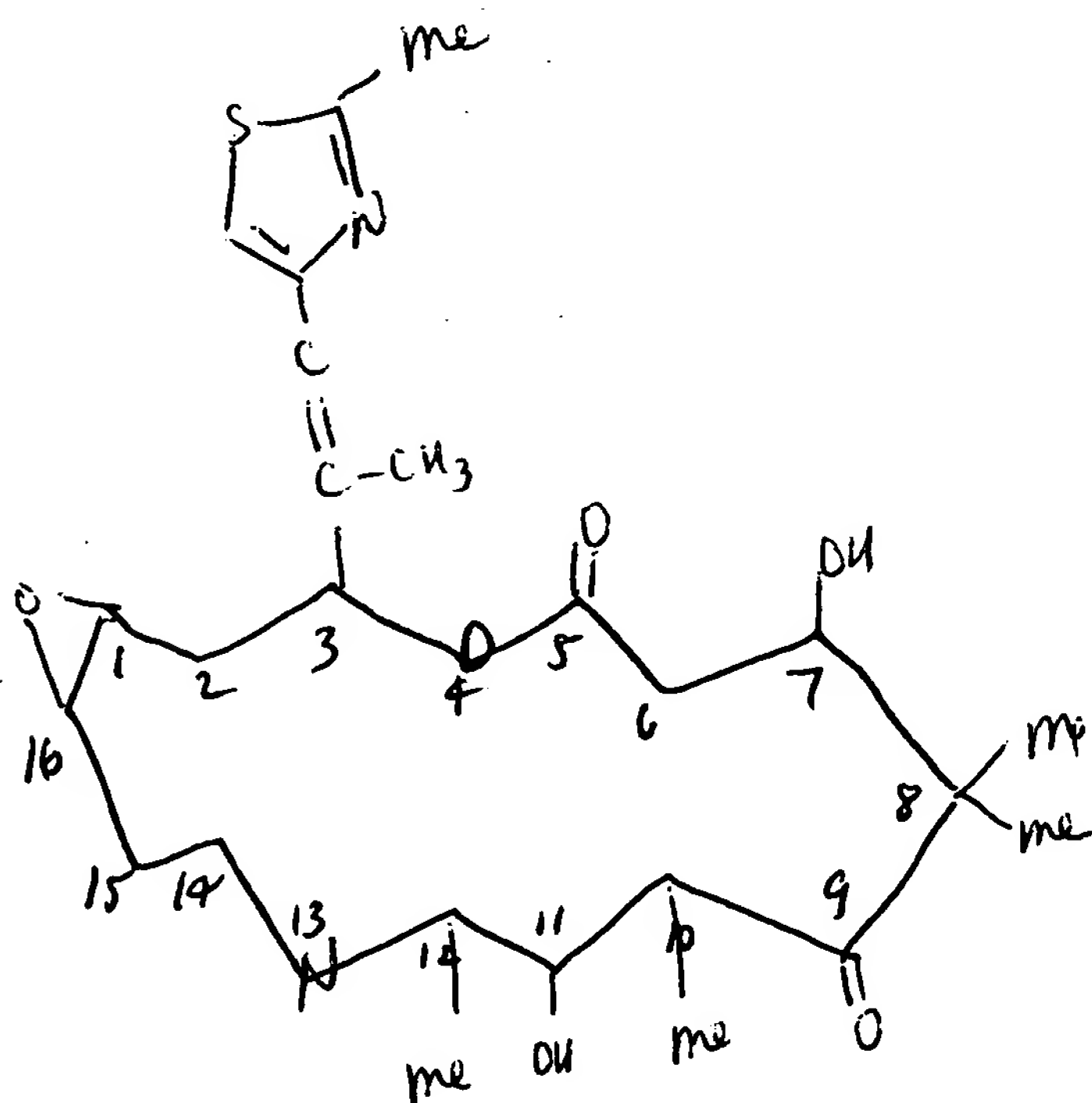


OC2-NC6OC8/r21

25

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-aza-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

26



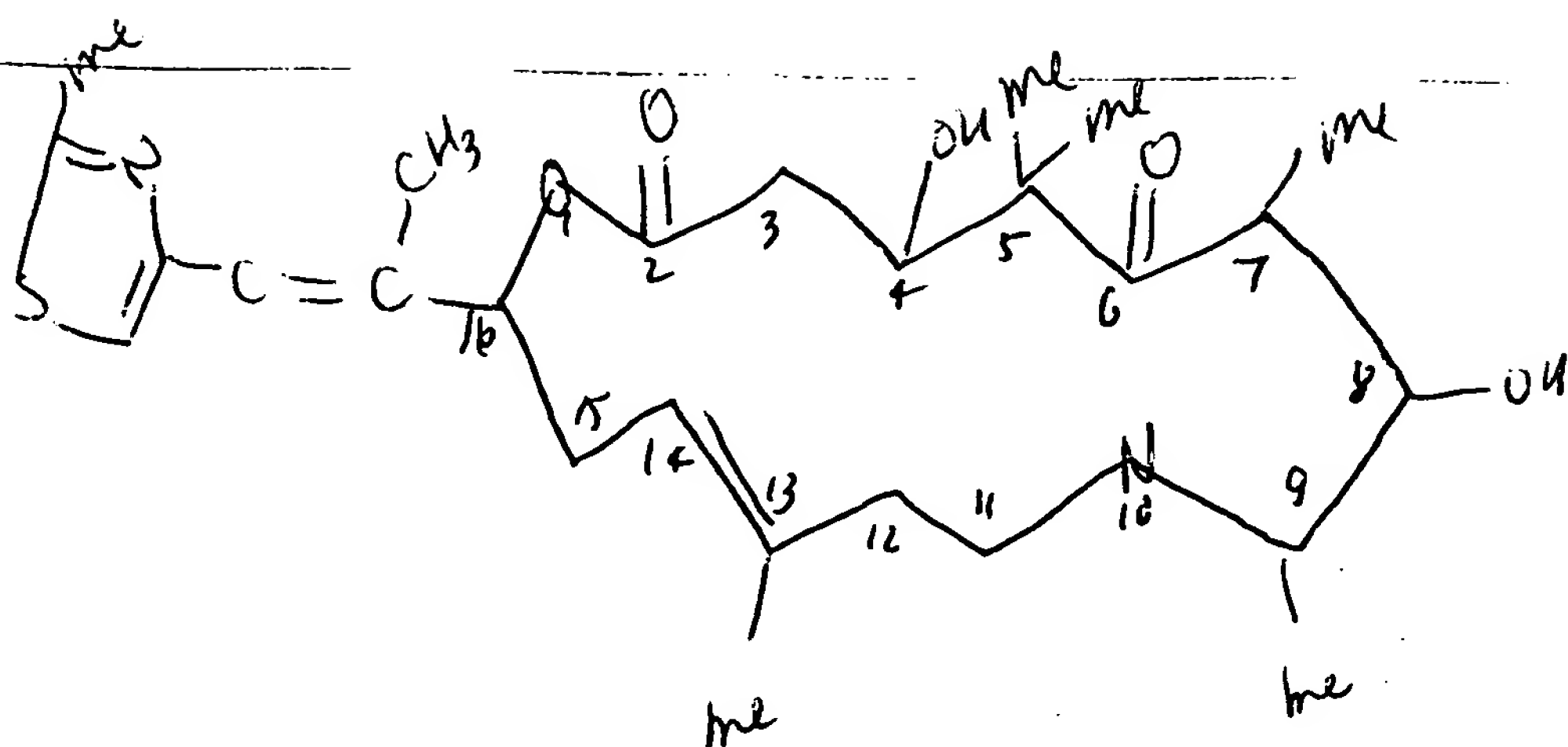
OC2-NC6OC8/r21

5

26

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-aza-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

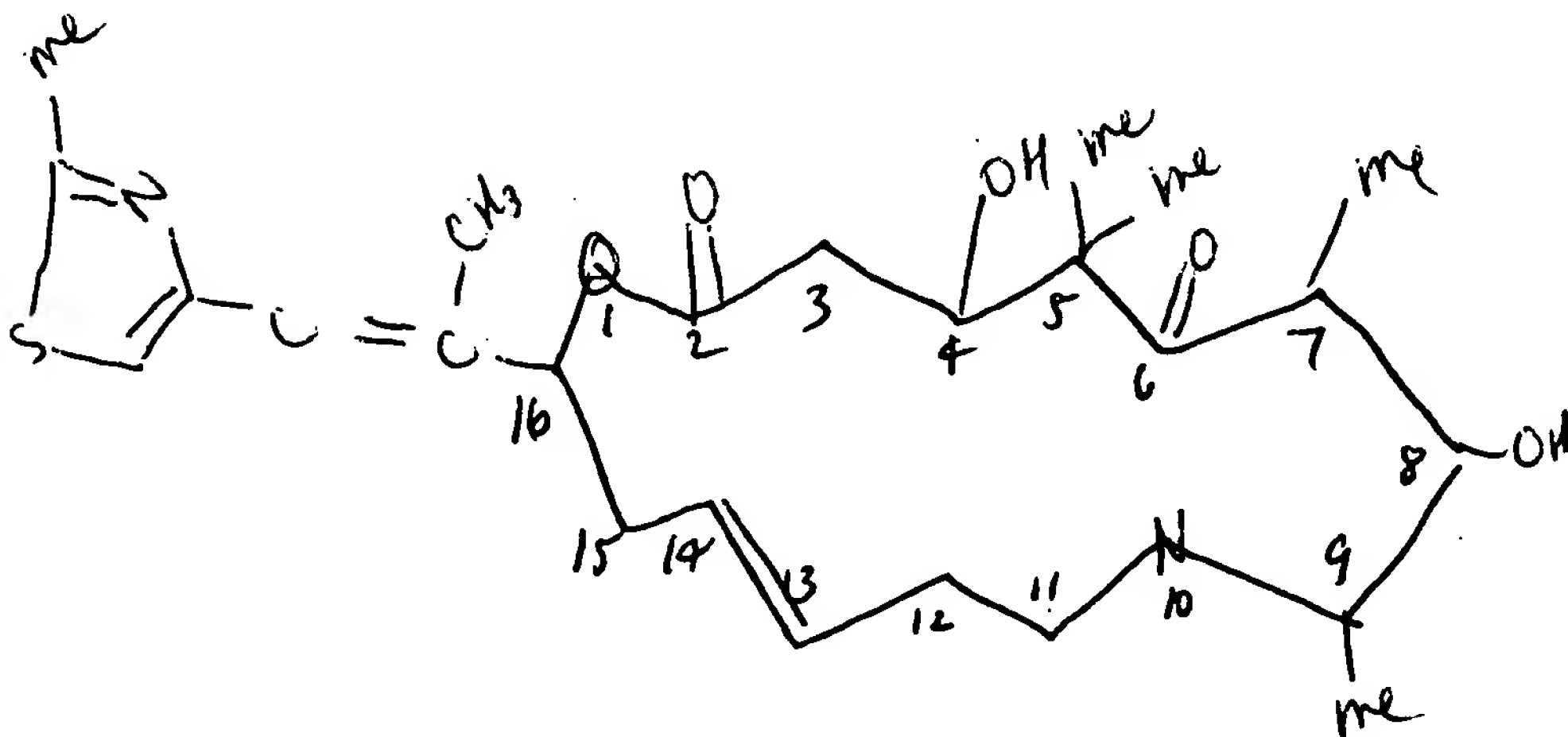
27



NC60C8/es

- 10 [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13-pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-aza-1-oxa-13-cyclohexadecene-2,6-dione;

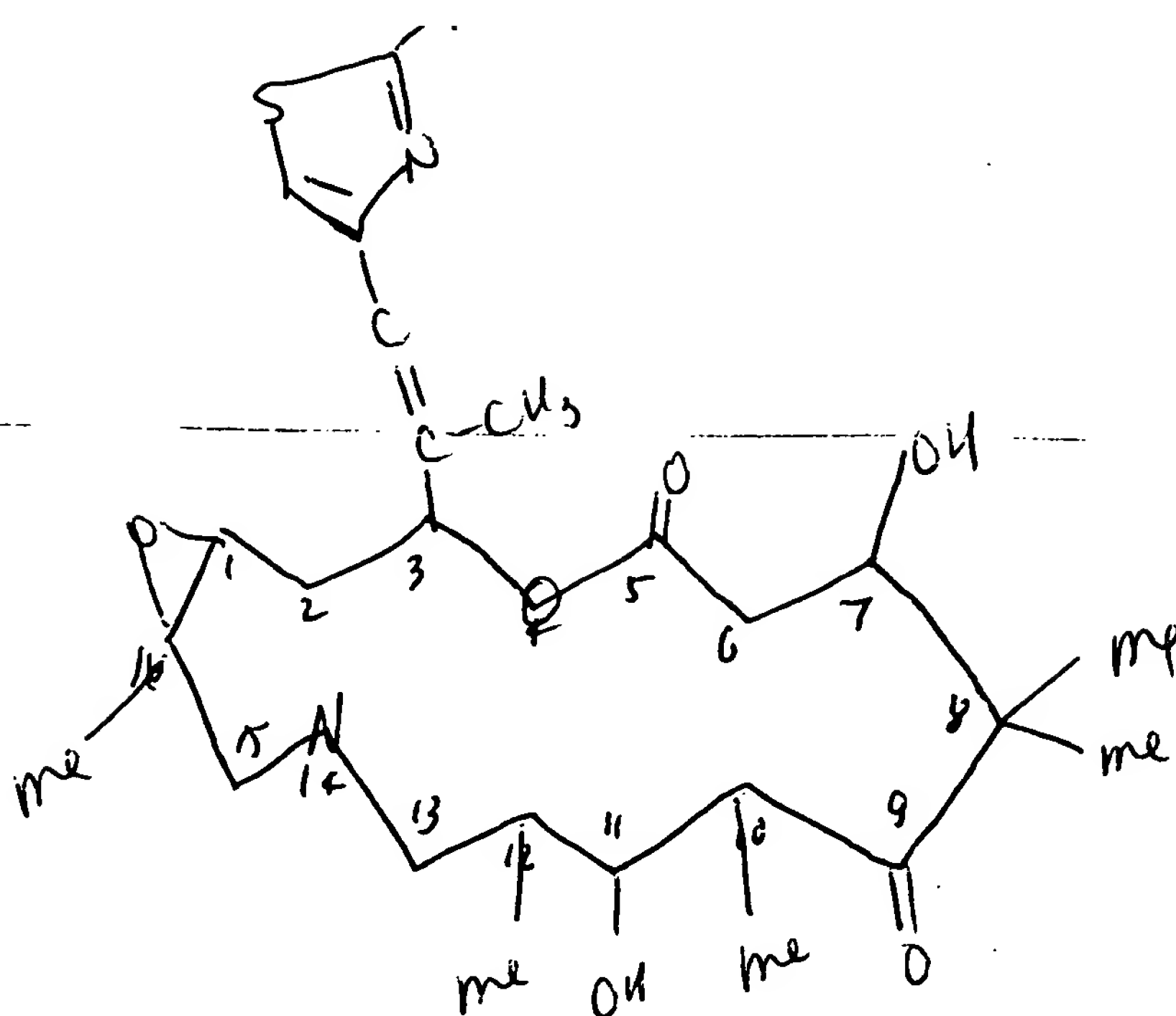
28



NC60C8/es

- 15 [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9-tetramethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-aza-1-oxa-13-cyclohexadecene-2,6-dione;

29

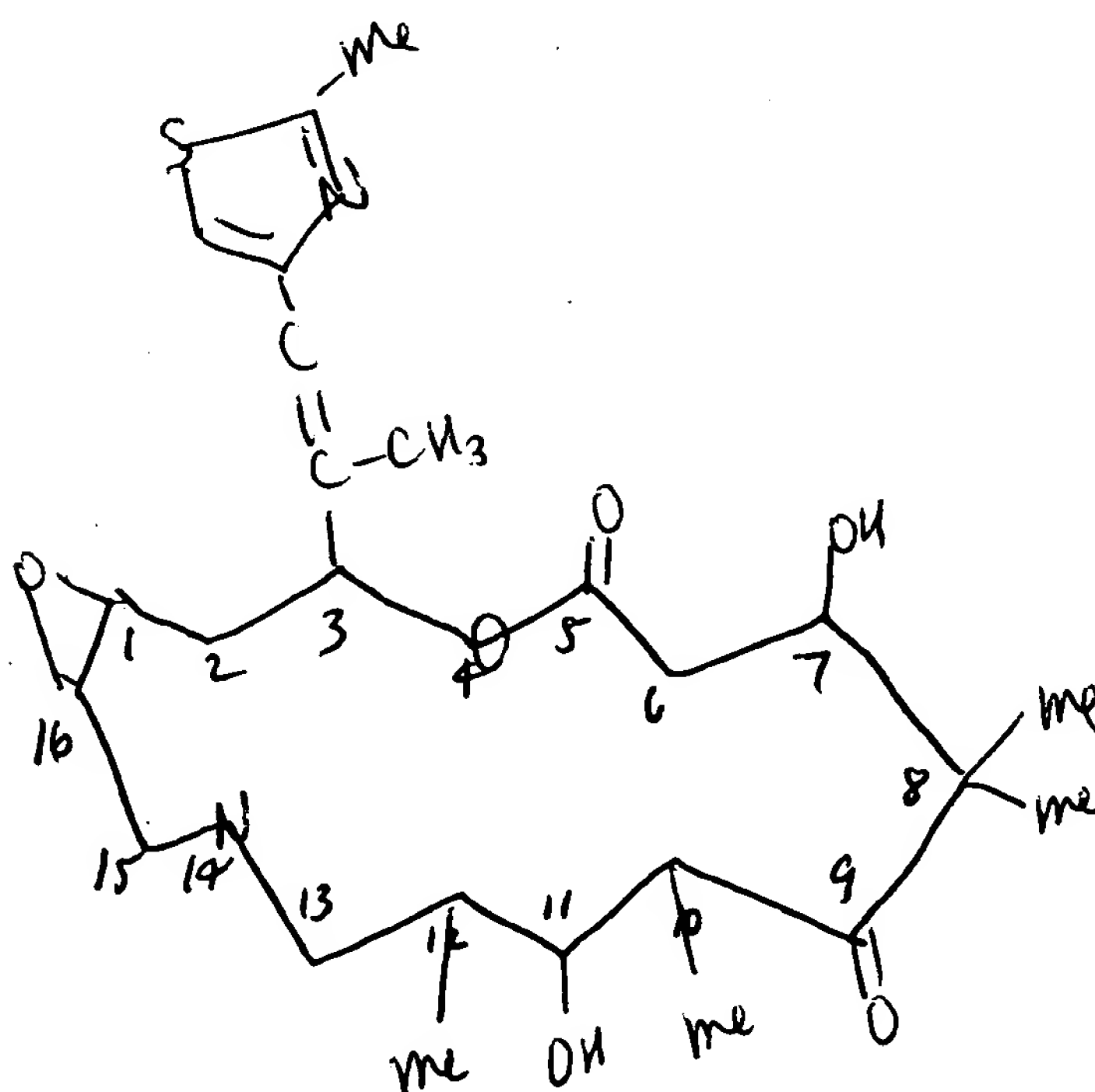


OC2-NC5OC9/es

29

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-14-aza-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

30

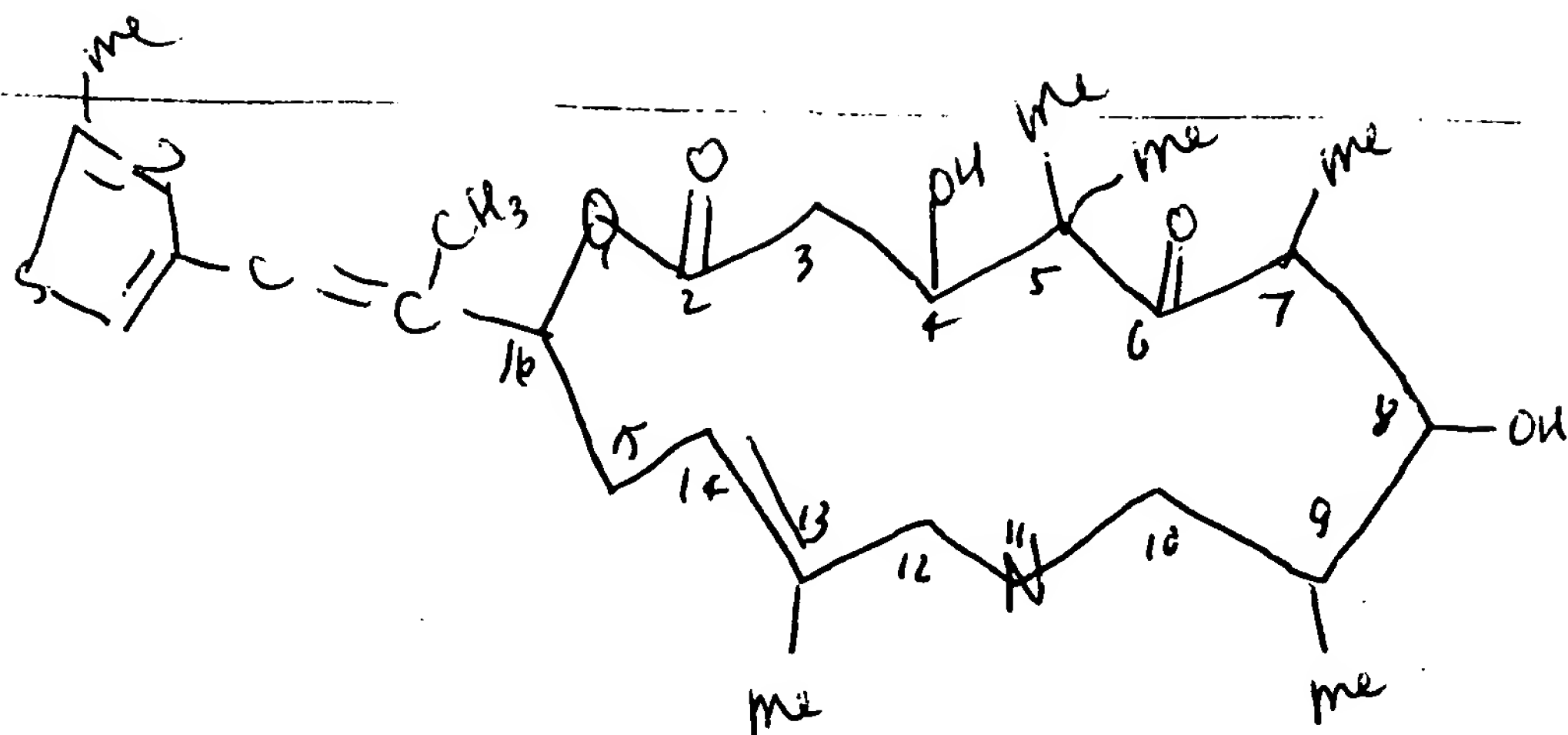


OC2-NC5OC9/es

30

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-14-aza-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione;

31

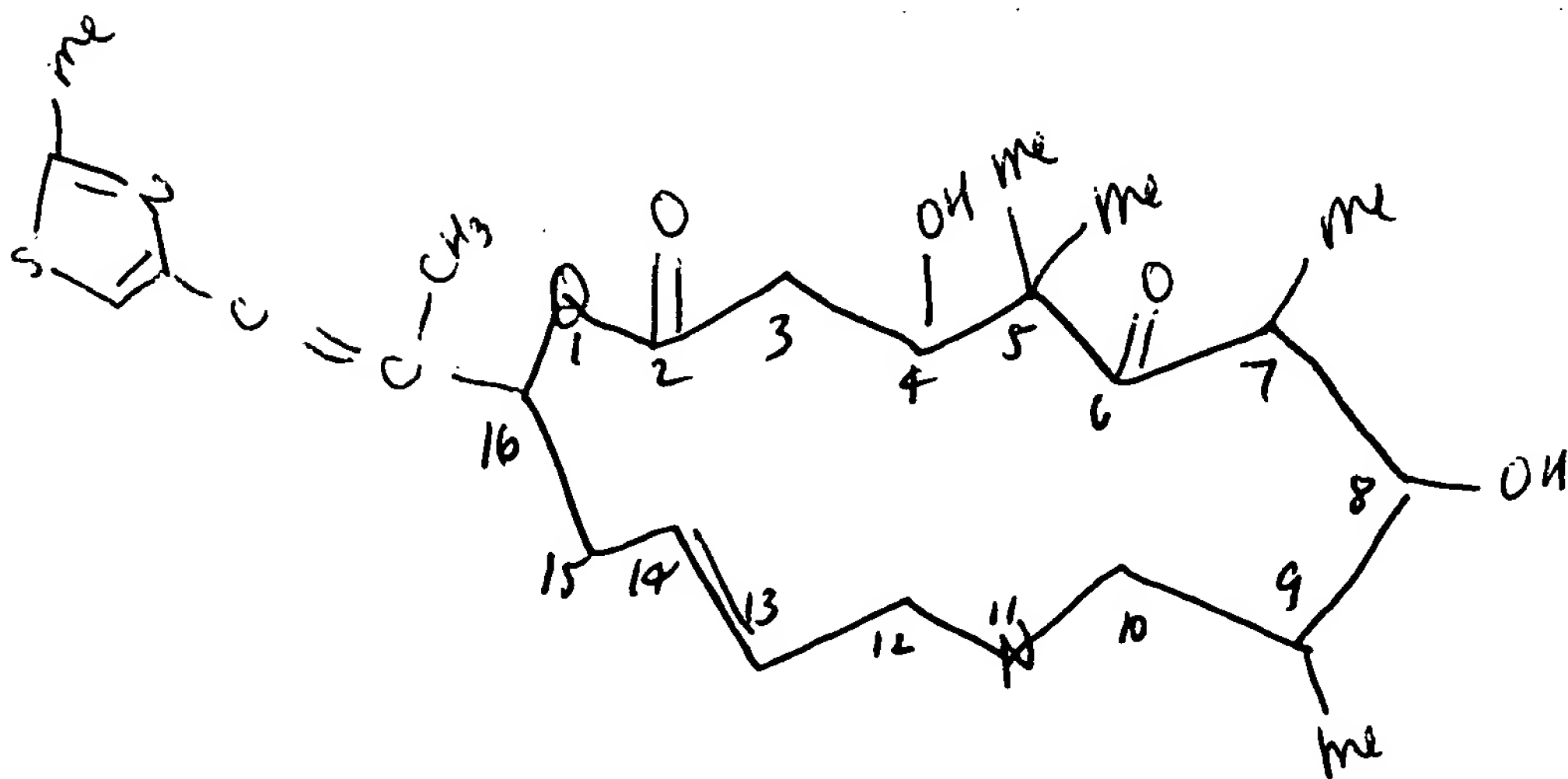


NC50C9/es

[4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13-pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-11-aza-1-oxa-13-cyclohexadecene-2,6-dione;

31

32

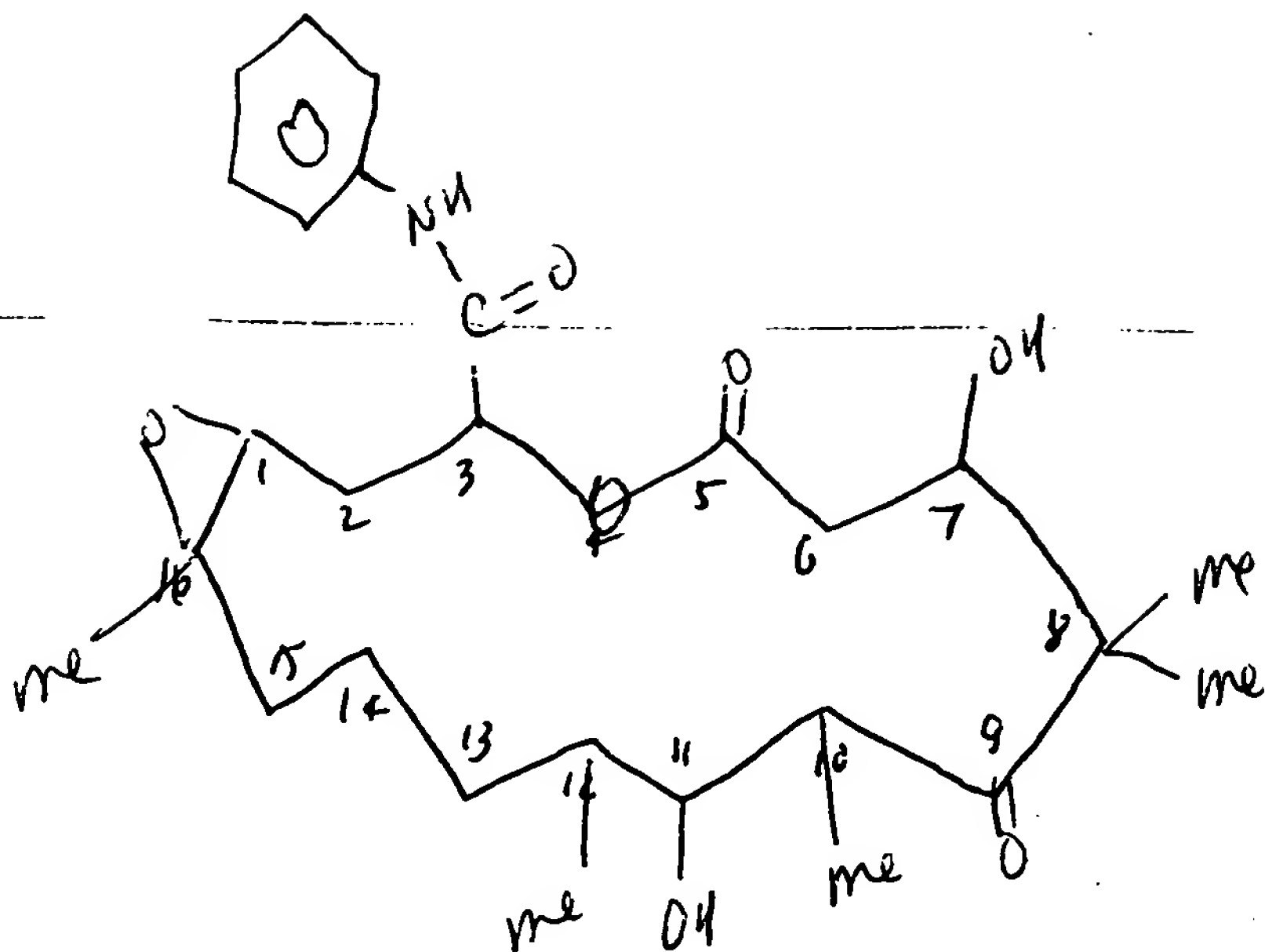


NC50C9/es

30 [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9-tetramethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-11-aza-1-oxa-13-cyclohexadecene-2,6-dione;

32

33



46. 150.18 /nd

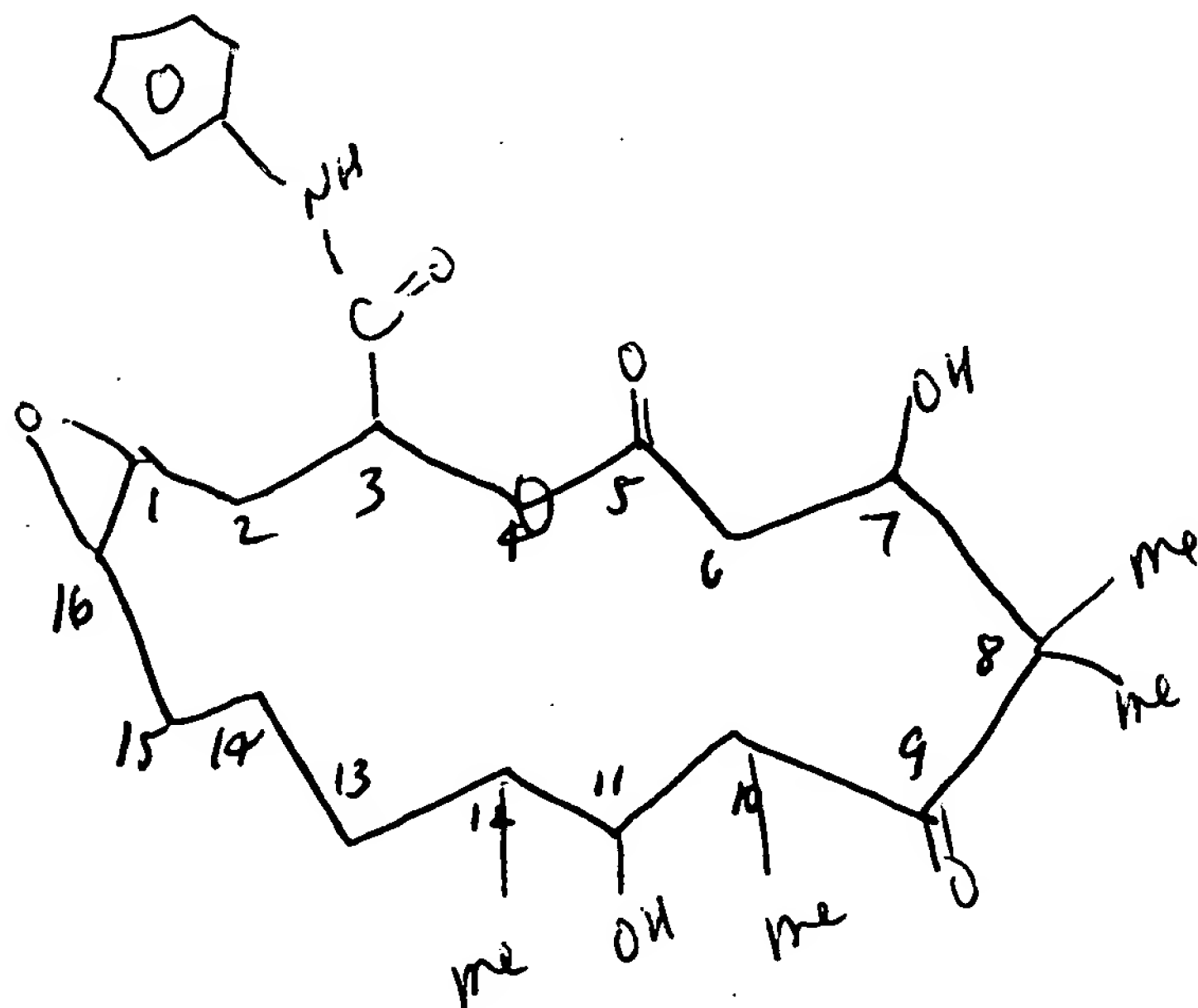
OC2-OC15/es

35

[1S-[1R*,3R*,7R*,10S*,11R*,12R*,16S*]]-N-Phenyl-7,11-dihydroxy-8,8,10,12,16-pentamethyl-5,9-dioxo-4,17-dioxabicyclo[14.1.0]heptadecane-3-carboxamide;

- 66 -

34



46. 150.18 /nd

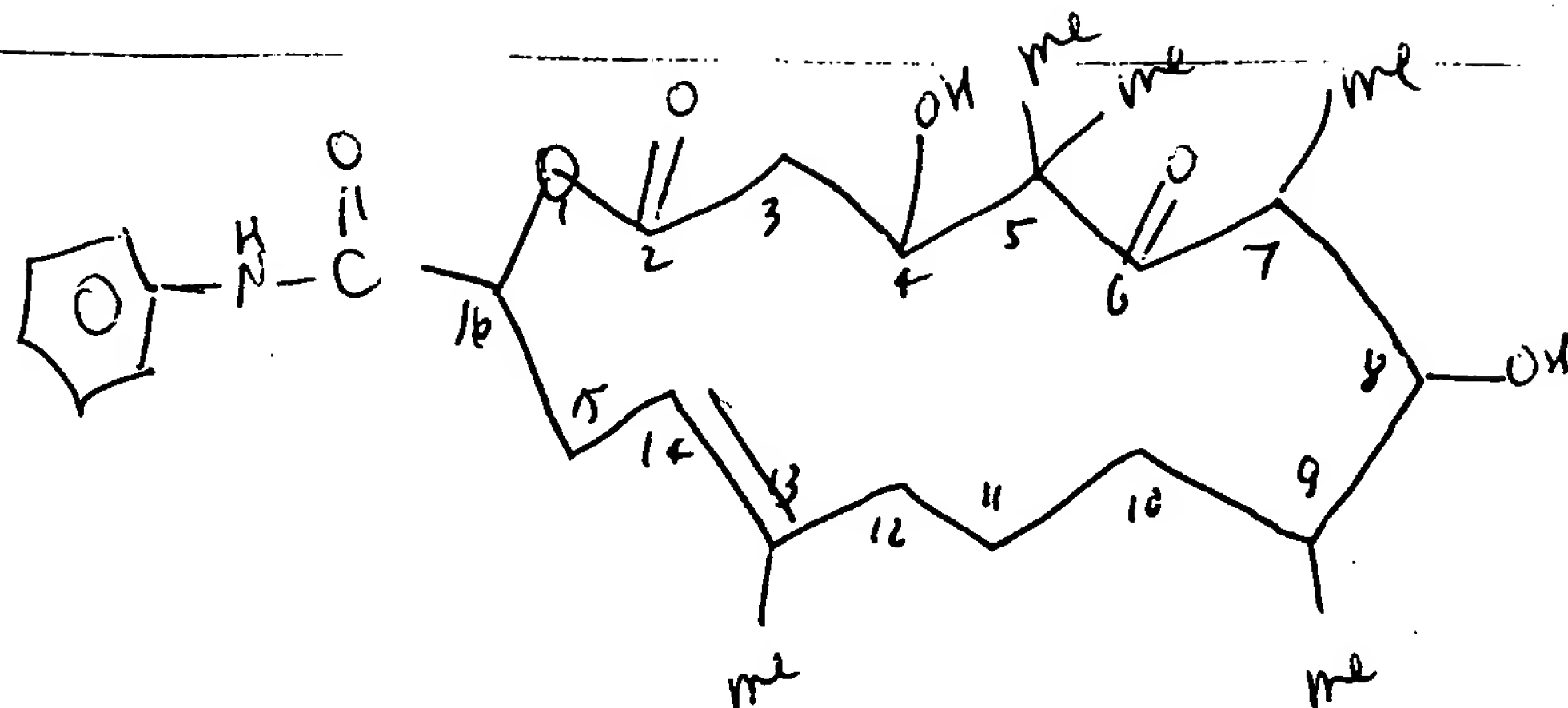
+

OC2-OC5/es

34

[1S-[1R*,3R*,7R*,10S*,11R*,12R*,16S*]]-N-Phenyl-7,11-dihydroxy-8,8,10,12-tetramethyl-5,9-dioxo-4,17-dioxabicyclo[14.1.0]heptadecane-3-carboxamide;

35



OC 15/22 +
46.150.18/mel.

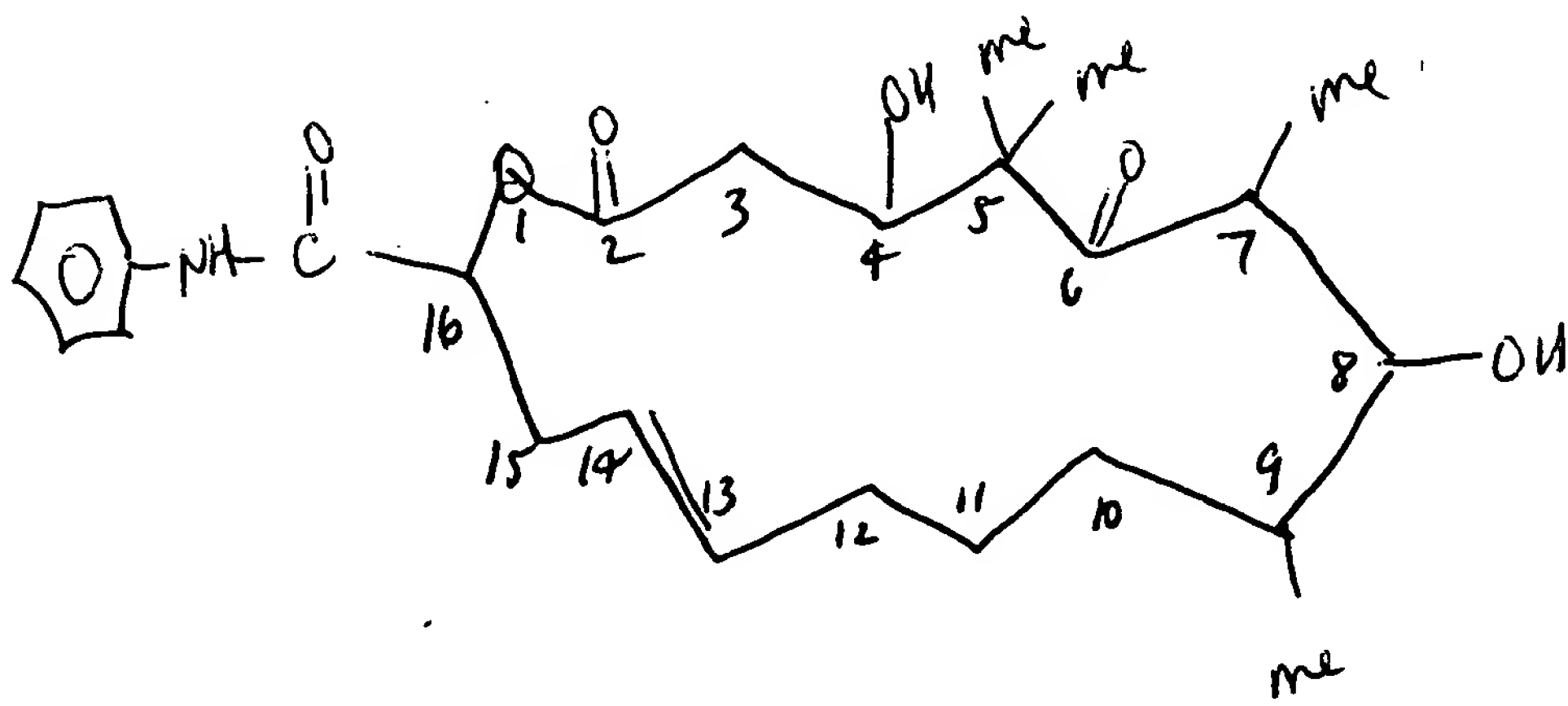
5

35

[4S-[4R*,7S*,8R*,9R*,15R*]]-N-Phenyl-4,8-dihydroxy-5,5,7,9,13-pentamethyl-2,6-dioxo-1-oxa-13-cyclohexadecene-16-carboxamide;

36

36



OC 15/22
+
46.150.18

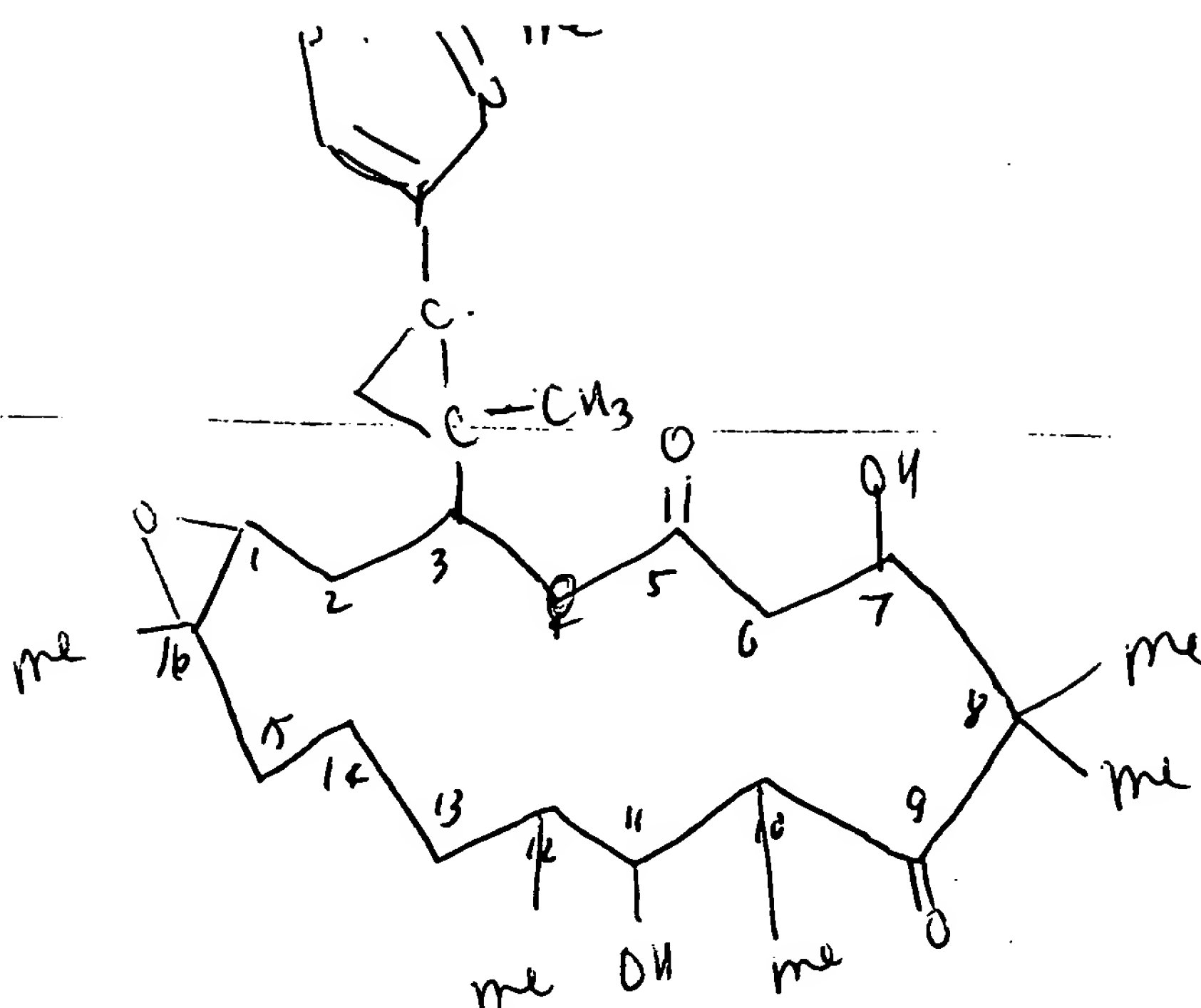
[4S-[4R*,7S*,8R*,9R*,15R*]]-N-Phenyl-4,8-dihydroxy-5,5,7,9-tetramethyl-

38

10

2,6-dioxo-1-oxa-13-cyclohexadecene-16-carboxamide.

(37)



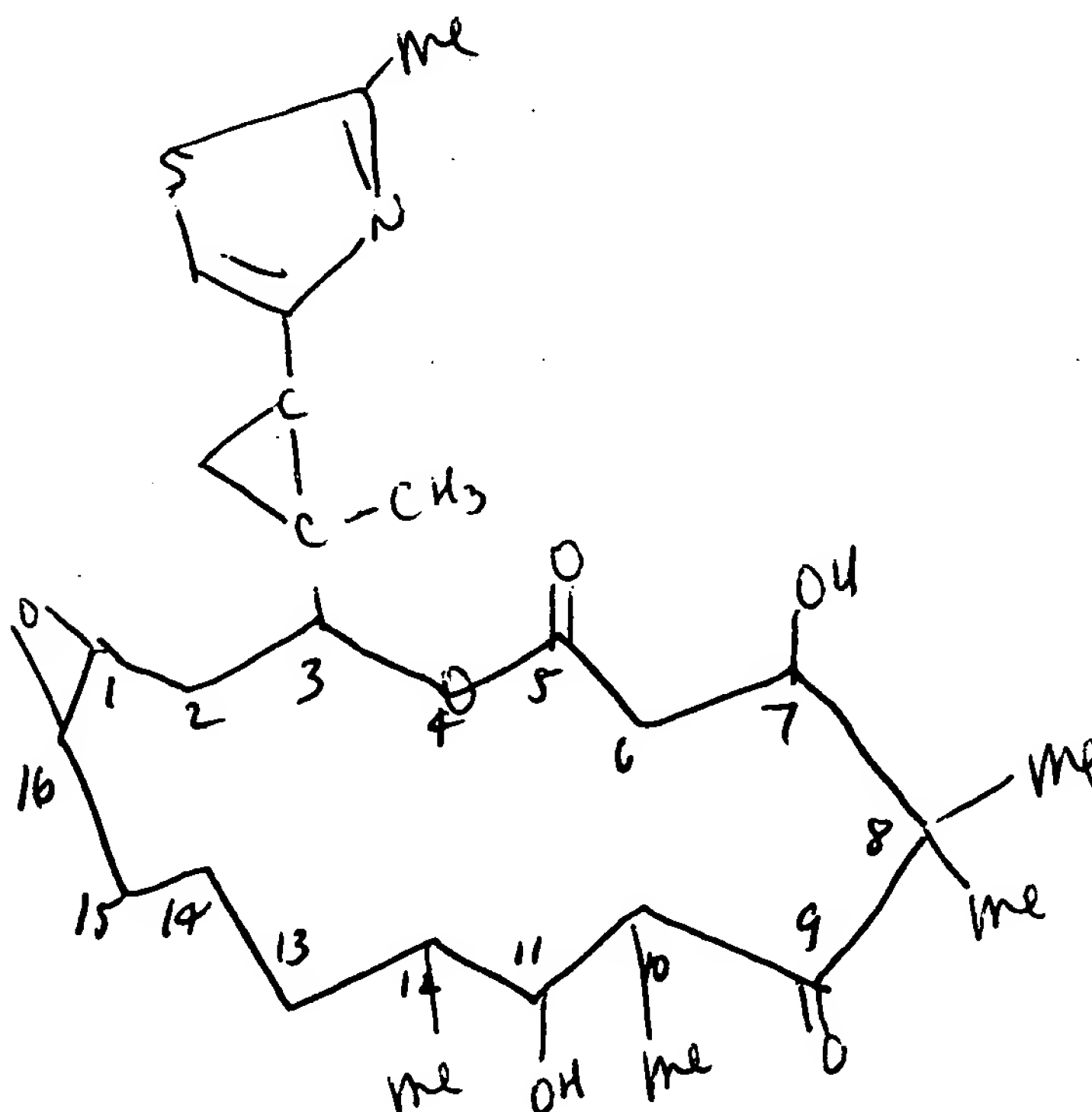
+ C₃/ee
OC₂-OC15/ee

(37)

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)cyclopropyl]-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione.

15

(38)

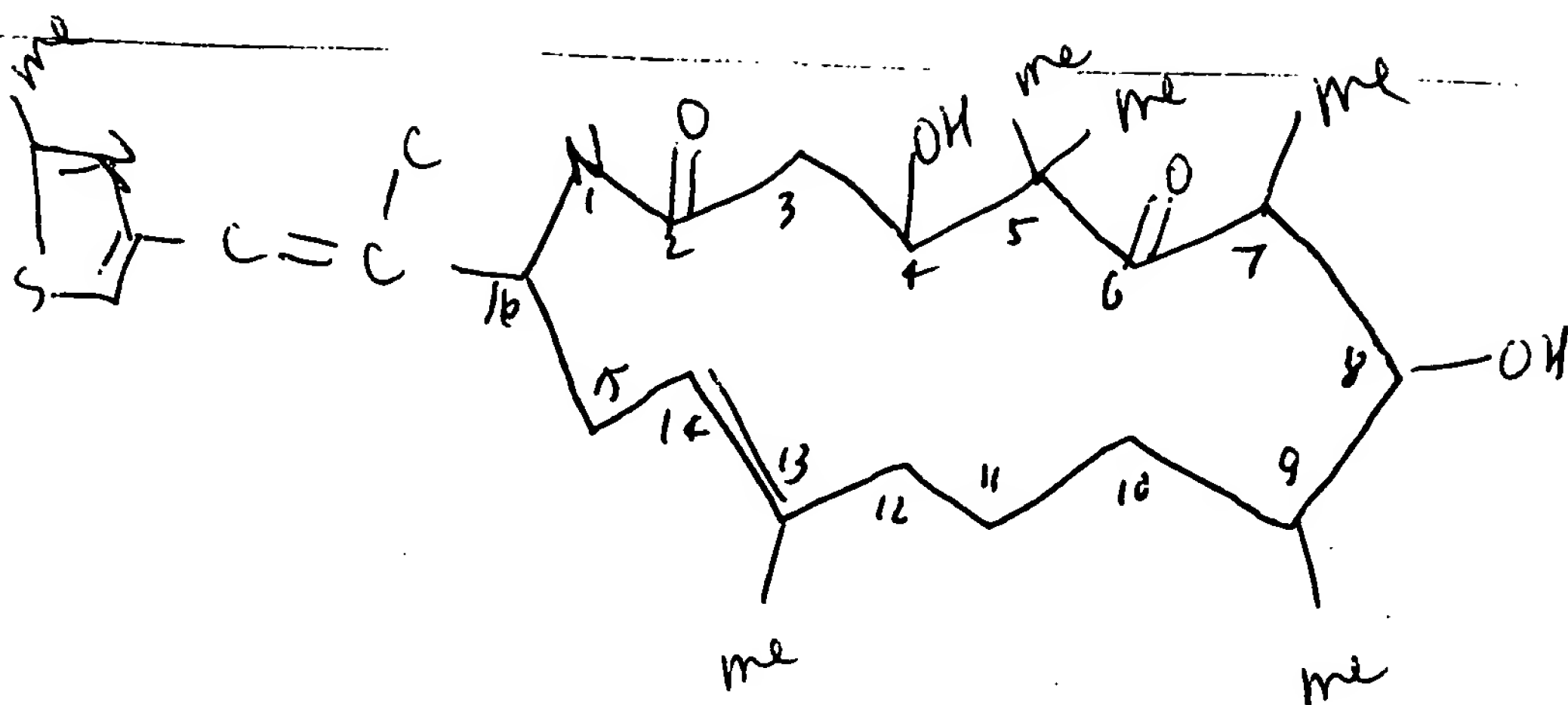


+ C₃/ee
OC₂-OC15/ee

(38)

[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-7,11-Dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)cyclopropyl]-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione.

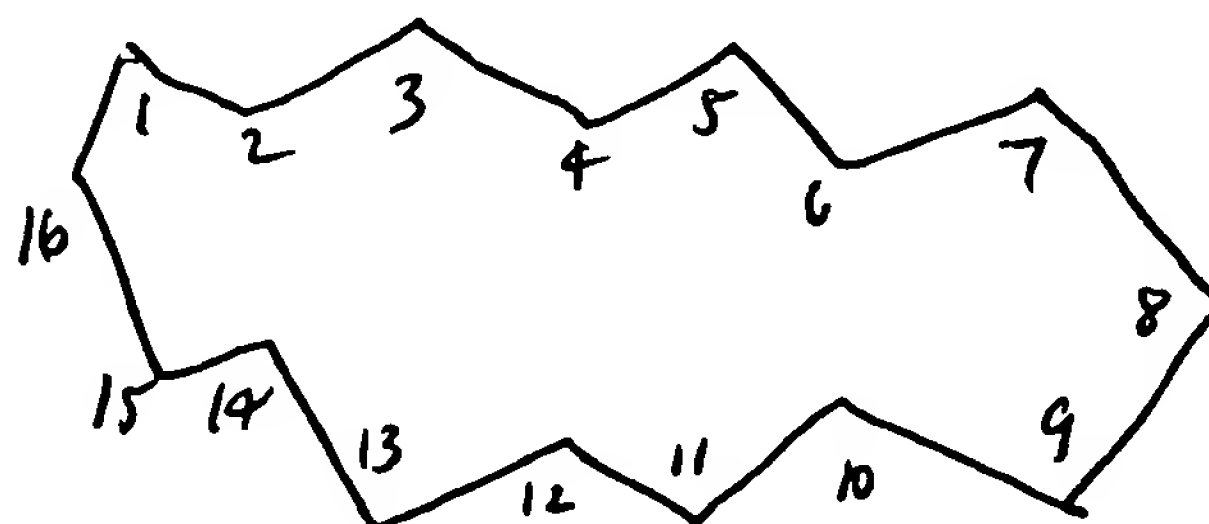
(39)



NC15/22

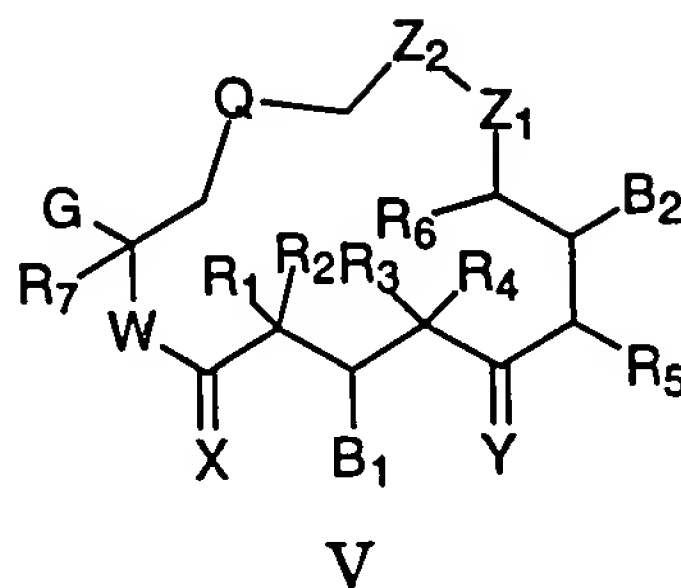
- 20 [4S-[4R*,7S*,8R*,9R*,15R*(E)]]-4,8-Dihydroxy-5,5,7,9,13-pentamethyl-16-[1-methyl-2-(2-hydroxymethyl-4-thiazolyl)ethenyl]-1-aza-13(Z)-cyclohexadecene-2,6-dione;

(39)



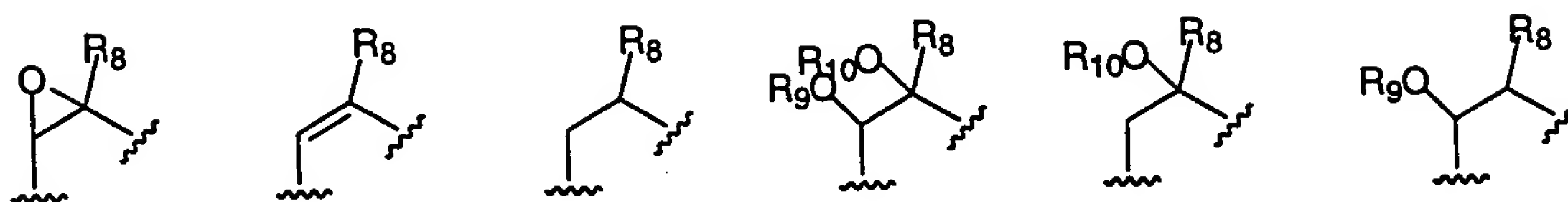
What is Claimed:

1. A compound of the formula



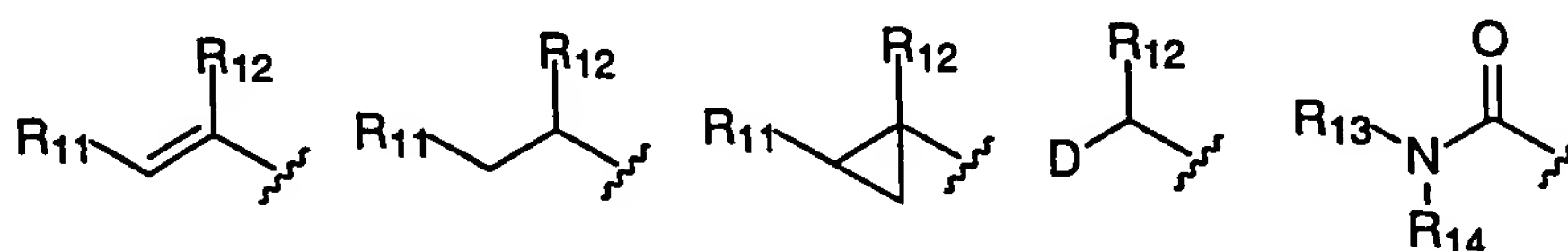
5

Q is selected from the group consisting of



10

G is selected from the group consisting of alkyl, substituted alkyl, substituted or unsubstituted aryl, heterocyclo,



15

W is O or NR₁₅;

X is O or H, H;

Y is selected from the group consisting of O; H, OR₁₆; OR₁₇, OR₁₇; NOR₁₈; H, NOR₁₉; H, NR₂₀R₂₁; H, H; or CHR₂₂; OR₁₇ OR₁₇ can be a cyclic ketal;

20

Z₁, and Z₂ are selected from the group consisting of CH₂, O, NR₂₃, S, or SO₂, wherein only one of Z₁ and Z₂ can be a heteroatom;

B₁ and B₂ are selected from the group consisting of OR₂₄, or

OCOR₂₅, or O₂CNR₂₆R₂₇; when B₁ is H and Y is OH, H they can form a six-membered ring ketal or acetal;

D is selected from the group consisting of $\text{NR}_{28}\text{R}_{29}$, $\text{NR}_{30}\text{COR}_{31}$ or saturated heterocycle;

R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , R_7 , R_{13} , R_{14} , R_{18} , R_{19} , R_{20} , R_{21} , R_{22} , R_{26} , and R_{27} are selected from the group H, alkyl, substituted alkyl, or aryl and when R_1 and R_2 are alkyl can be joined to form a cycloalkyl; R_3 and R_4 are alkyl can be joined to form a cycloalkyl;

R_9 , R_{10} , R_{16} , R_{17} , R_{24} , R_{25} , and R_{31} are selected from the group H, alkyl, or substituted alkyl;

R_8 , R_{11} , R_{12} , R_{28} , R_{30} , R_{32} , R_{33} , and R_{30} are selected from the group consisting of H, alkyl, substituted alkyl, aryl, substituted aryl, cycloalkyl, or heterocycle;

R_{15} , R_{23} and R_{29} are selected from the group consisting of H, alkyl, substituted alkyl, aryl, substituted aryl, cycloalkyl, heterocycle, $\text{R}_{32}\text{C}=\text{O}$, R_{33}SO_2 , hydroxy, O-alkyl or O-substituted alkyl, the pharmaceutically acceptable salts thereof and any hydrates, solvates or geometric, optical and stereoisomers thereof, with the proviso that compounds wherein

W and X are both O; and ✓

R_1 , R_2 , R_7 , are H; and ✓

R_3 , R_4 , R_6 , are methyl; and ✓

R_8 , is H or methyl; and

Z_1 , and Z_2 , are CH_2 ; and

G is 1-methyl-2-(substituted-4-thiazolyl)ethenyl; and

Q is as defined above

are excluded.

What about B^1 , B^2 , R_5 , Y, etc??

Brenda - The search pulled
up these compounds.

They are
Epothilone A, B, C, and D

I think that they are
promised out.

I removed these compounds
from the set.

=> D L18 4

L18 ANSWER 4 OF 4 REGISTRY COPYRIGHT 1999 ACS

RN 152044-53-6 REGISTRY

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3R,7R,10S,11R,12R,16S)-rel- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, [1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]-

OTHER NAMES:

CN (-)-Epothilone A

CN Epothilone A

FS STEREOSEARCH

DR 186692-57-9

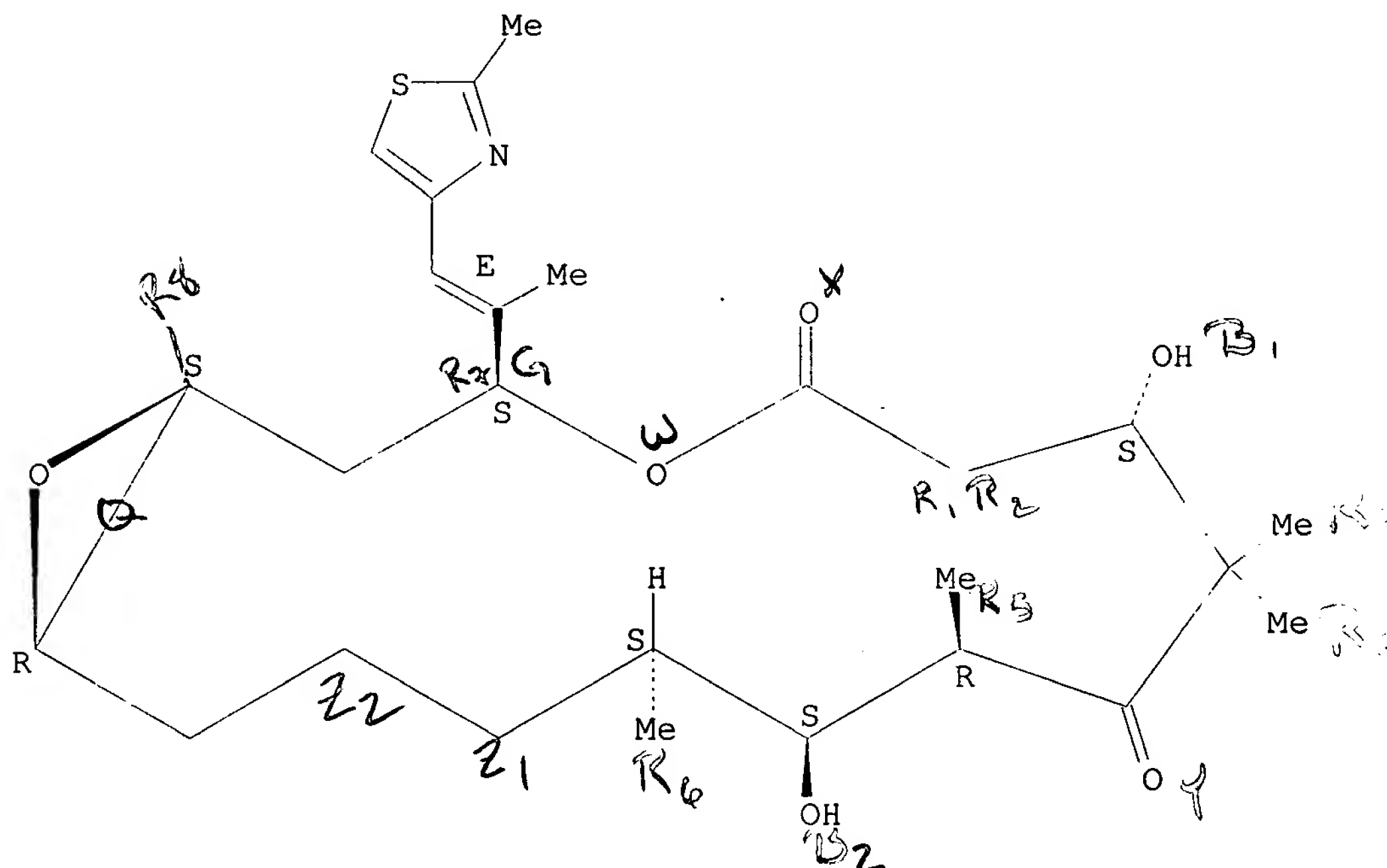
MF C26 H39 N O6 S

SR	CA
----	----

LC STN Files: ADISINSIGHT, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CEN,
CIN, DRUGUPDATES, EMBASE, MRCK*, PHAR, PROMT, TOXLIT
(*File contains numerically searchable property data)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.



68 REFERENCES IN FILE CA (1967 TO DATE)

6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

69 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> D L18 3

L18 ANSWER 3 OF 4 REGISTRY COPYRIGHT 1999 ACS

RN 152044-54-7 REGISTRY

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-
8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
[1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]]-

OTHER NAMES:

CN (-)-Epothilone B

CN Epothilone B

FS STEREOSEARCH

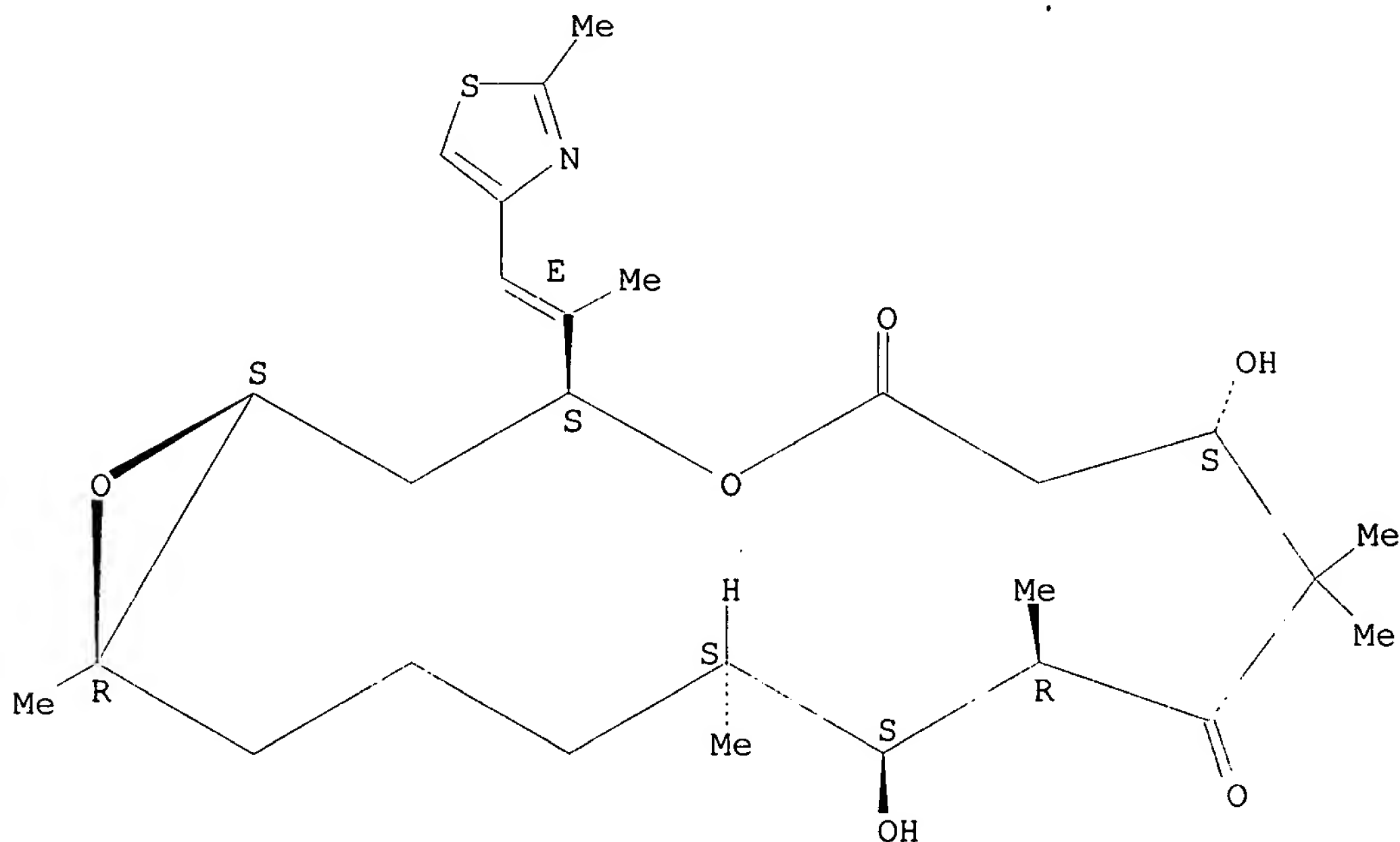
MF C27 H41 N O6 S

SR CA

LC STN Files: ADISINSIGHT, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CEN,
CIN, DRUGUPDATES, EMBASE, MRCK*, PHAR, PROMT, TOXLIT
(*File contains numerically searchable property data)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.



53 REFERENCES IN FILE CA (1967 TO DATE)

3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

54 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> D L18 2

L18 ANSWER 2 OF 4 REGISTRY COPYRIGHT 1999 ACS

RN 186692-73-9 REGISTRY

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7,9-tetramethyl-16-[1-
methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, [4S-
[4R*,7S*,8R*,9R*,13Z,16R*(E)]]-

OTHER NAMES:

CN (-)-Deoxyepothilone A

CN (-)-Desoxyepothilone A

CN Desoxyepothilone A

CN Epothilone C

FS STEREOSEARCH

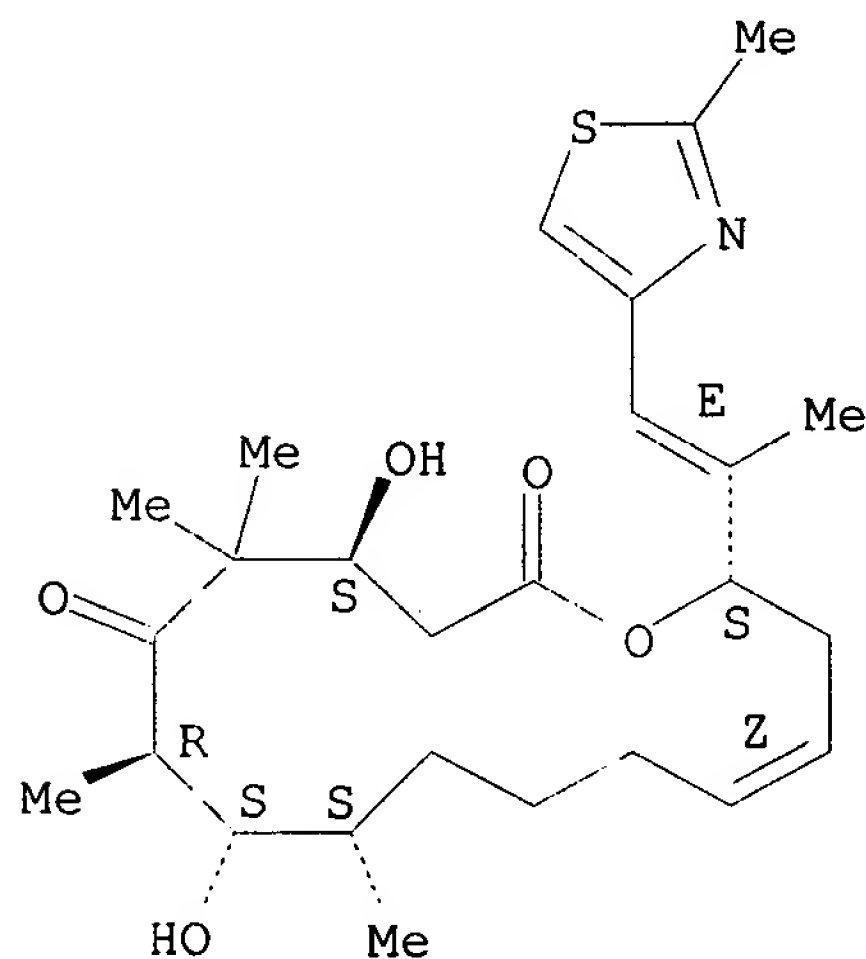
MF C26 H39 N O5 S

SR CA

LC STN Files: BIOSIS, CA, CAPLUS, CASREACT, TOXLIT

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.



27 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

27 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> D L18

L18 ANSWER 1 OF 4 REGISTRY COPYRIGHT 1999 ACS

RN 189453-10-9 REGISTRY

CN Oxacyclohexadec-13-ene-2,6-dione,

4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-

[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Oxacyclohexadec-13-ene-2,6-dione,

4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-

[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, [4S-
[4R*,7S*,8R*,9R*,13Z,16R*(E)]]-

OTHER NAMES:

CN (-)-Desoxyepothilone B

CN Desoxyepothilone B

CN Epothilone D

CN NSC 703147

FS STEREOSEARCH

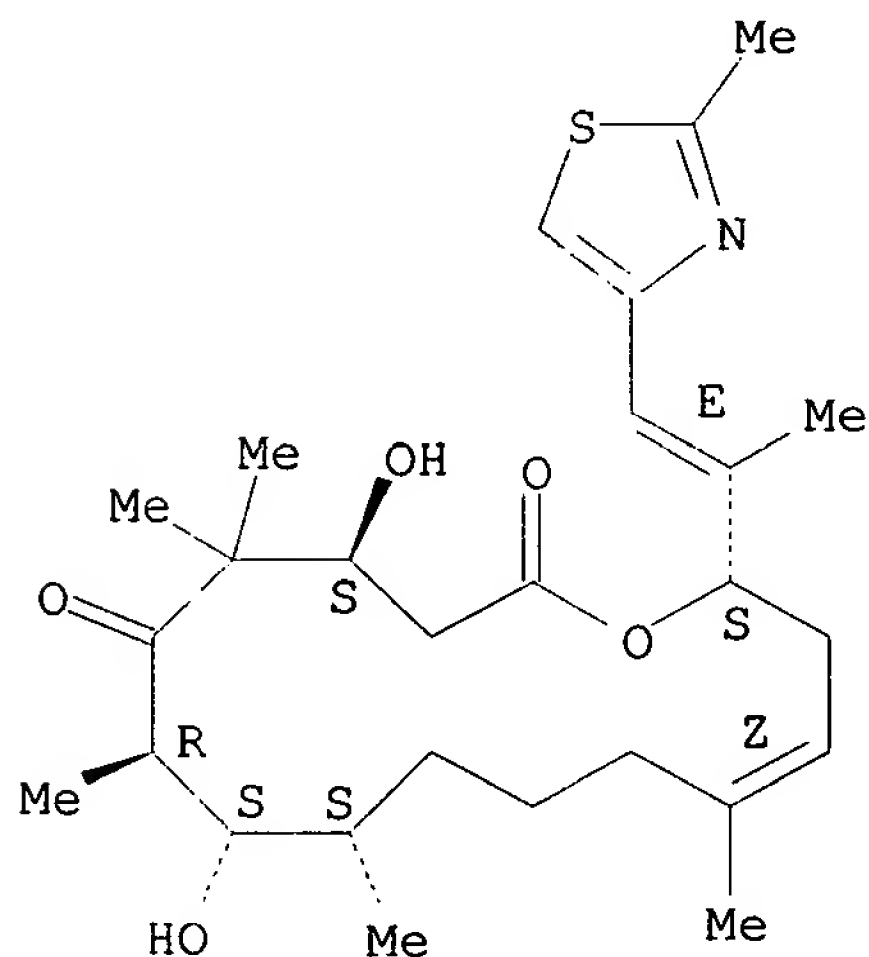
MF C27 H41 N O5 S

SR CA

LC STN Files: BIOSIS, CA, CAPLUS, CASREACT, TOXLIT

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.



23 REFERENCES IN FILE CA (1967 TO DATE)

23 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L21 FILE 'CAOLD' ENTERED AT 14:21:47 ON 23 JUN 1999
0 S L19

FILE 'REGISTRY' ENTERED AT 14:21:54 ON 23 JUN 1999

FILE 'REGISTRY' ENTERED AT 14:23:15 ON 23 JUN 1999
SAV L12 COLE084C/A
SAV L18 COLE084D/A

L22 FILE 'CAPLUS' ENTERED AT 14:24:48 ON 23 JUN 1999
18 S L20 AND (?CANCER? OR ?TUMOR? OR ?NEOPLAS?)
L23 1 S L20 AND HYPERPROLIF?
L24 1 S L20 AND ?ANGIOGEN?

L25 FILE 'BIOSIS, MEDLINE' ENTERED AT 14:26:52 ON 23 JUN 1999
0 S L19

L26 FILE 'USPATFULL' ENTERED AT 14:27:55 ON 23 JUN 1999
0 S L19

=> D L22 1-18

L22 ANSWER 1 OF 18 CAPLUS COPYRIGHT 1999 ACS

AN 1999:126888 CAPLUS

DN 130:196529

TI Preparation of new epothilone derivatives as pharmaceutical agents

IN Klar, Ulrich; Schwede, Wolfgang; Skuballa, Werner; Buchmann, Bernd;
Schirner, Michael

PA Schering Aktiengesellschaft, Germany

SO PCT Int. Appl., 185 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9907692	A2	19990218	WO 98-EP5064	19980810
	WO 9907692	A3	19990514		
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	DE 19735574	A1	19990211	DE 97-19735574	19970809
	DE 19735575	A1	19990211	DE 97-19735575	19970809
	DE 19735578	A1	19990211	DE 97-19735578	19970809
	DE 19748928	A1	19990429	DE 97-19748928	19971024
	DE 19749717	A1	19990506	DE 97-19749717	19971031
	DE 19751200	A1	19990520	DE 97-19751200	19971113
	AU 9893409	A1	19990301	AU 98-93409	19980810
PRAI	DE 97-19735574		19970809		
	DE 97-19735575		19970809		
	DE 97-19735578		19970809		
	DE 97-19748928		19971024		
	DE 97-19749717		19971031		
	DE 97-19751200		19971113		
	DE 98-19813821		19980320		
	WO 98-EP5064		19980810		
OS	MARPAT 130:196529				

L22 ANSWER 2 OF 18 CAPLUS COPYRIGHT 1999 ACS

AN 1999:48614 CAPLUS

DN 130:124934

TI Synthesis of epothilones, intermediates and analogs for use in treatment of **cancers** with multidrug-resistant phenotype

IN Danishefsky, Samuel J.; Balog, Aaron; Bertinato, Peter; Su, Dai-Shi; Chou,

Ting-Chau; Meng, Dong Fang; Kamenecka, Ted; Sorensen, Erik J.

PA Sloan-Kettering Institute for Cancer Research, USA

SO PCT Int. Appl., 175 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 9901124 A1 19990114 WO 97-US22381 19971203
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
DK, EE, ES, FI, GB, GE, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ,
VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
GN, ML, MR, NE, SN, TD, TG
AU 9857929 A1 19990125 AU 98-57929 19971205
PRAI US 96-32282 19961203
US 97-33767 19970114
US 97-47566 19970522
US 97-47941 19970529
US 97-55533 19970813
WO 97-US22381 19971203
OS MARPAT 130:124934

L22 ANSWER 3 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1999:19340 CAPLUS
DN 130:217758
TI Desoxyepothilone B is curative against human **tumor** xenografts
that are refractory to paclitaxel
AU Chou, Ting-Chao; Zhang, Xiu-Guo; Harris, Christina R.; Kuduk, Scott D.;
Balog, Aaron; Savin, Kenneth A.; Bertino, Joseph R.; Danishefsky, Samuel
J.
CS Molecular Pharmacology and Therapeutics Program, Sloan-Kettering
Institute
for Cancer Research, New York, NY, 10021, USA
SO Proc. Natl. Acad. Sci. U. S. A. (1998), 95(26), 15798-15802
CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English

L22 ANSWER 4 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1998:503765 CAPLUS
DN 129:244965
TI Synthesis and biological properties of C12,13-cyclopropyl-epothilone A
and
related epothilones
AU Nicolaou, K. C.; Finlay, M. Ray V.; Ninkovic, Sacha; King, N. Paul; He,
Yun; Li, Tianhu; Sarabia, Francisco; Vourloumis, Dionisios
CS Dep. Chemistry, The Skaggs Inst. Chem. Biol., The Scripps Res. Inst., La
Jolla, CA, 92037, USA
SO Chem. Biol. (1998), 5(7), 365-372
CODEN: CBOLE2; ISSN: 1074-5521
PB Current Biology Ltd.
DT Journal
LA English
OS CASREACT 129:244965

L22 ANSWER 5 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1998:405952 CAPLUS
DN 129:81625
TI Preparation of epothilone analogs as **anticancer** agents
IN Nicolaou, Costa Kyriacos; He, Yun; Ninkovic, Sacha; Pastor, Joaquin;
Roschangar, Frank; Sarabia, Francisco; Vallberg, Hans; Vourloumis,

Dionisios; Winssinger, Nicolas; Yang, Zhen; King, Nigel Paul; et al.
PA Novartis A.-G., Switz.; Scripps Research Institute
SO PCT Int. Appl., 213 pp.
CODEN: PIXXD2

DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 9825929	A1	19980618	WO 97-EP7011	19971212
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9857577	A1	19980703	AU 98-57577	19971212
PRAI	US 96-32864		19961213		
	US 97-856533		19970514		
	US 97-923869		19970904		
	WO 97-EP7011		19971212		
OS	MARPAT 129:81625				

L22 ANSWER 6 OF 18 CAPLUS COPYRIGHT 1999 ACS

AN 1998:378435 CAPLUS

DN 129:189151

TI Total synthesis of 26-hydroxy-epothilone B and related analogs via a macrolactonization based strategy

AU Nicolaou, K. C.; Finlay, M. Ray V.; Ninkovic, Sacha; Sarabia, Francisco
CS Department of Chemistry and The Skaggs Institute for Chemical Biology,
The

Scripps Research Institute, La Jolla, CA, 92037, USA

SO Tetrahedron (1998), 54(25), 7127-7166

CODEN: TETRAB; ISSN: 0040-4020

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 129:189151

L22 ANSWER 7 OF 18 CAPLUS COPYRIGHT 1999 ACS

AN 1998:352834 CAPLUS

DN 129:53436

TI Epothilone C, D, E and F, production process, and their use as
cytostatics

well as phytosanitary agents

IN Reichenbach, Hans; Hofle, Gerhard; Gerth, Klaus; Steinmetz, Heinrich

PA Gesellschaft Fur Biotechnologische Forschung m.b.H. (GBF), Germany;
Reichenbach, Hans; Hofle, Gerhard; Gerth, Klaus; Steinmetz, Heinrich

SO PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9822461	A1	19980528	WO 97-EP6442	19971118
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,			

DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
GN, ML, MR, NE, SN, TD, TG

AU 9854837 A1 19980610 AU 98-54837 19971118
PRAI DE 96-19647580 19961118
DE 97-19707506 19970225
WO 97-EP6442 19971118

L22 ANSWER 8 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1998:150476 CAPLUS
DN 128:230166
TI Total synthesis of epothilone E and analogs with modified side chains
through the Stille coupling reaction
AU Nicolaou, K. C.; He, Yun; Roschangar, Frank; King, N. Paul; Vourloumis,
Dionisios; Li, Tianhu
CS Department of Chemistry, Skaggs Inst. for Chemical Biology, Scripps Res.
Inst., La Jolla, CA, 92037, USA
SO Angew. Chem., Int. Ed. (1998), 37(1/2), 84-87
CODEN: ACIEF5; ISSN: 1433-7851
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
OS CASREACT 128:230166

L22 ANSWER 9 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1998:729 CAPLUS
DN 128:88685
TI Metathesis vs metastasis: the chemistry and biology of the epothilones
AU Finlay, Ray
CS Dep. Chemistry, The Skaggs Inst. for Chemical Biol., The Scripps Res.
Inst., La Jolla, CA, 92037, USA
SO Chem. Ind. (London) (1997), (24), 991-996
CODEN: CHINAG; ISSN: 0009-3068
PB Society of Chemical Industry
DT Journal; General Review
LA English

L22 ANSWER 10 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1997:787450 CAPLUS
DN 128:101936
TI Total synthesis of 26-hydroxyepothilone B and related analogs
AU Nicolaou, K. C.; Ninkovic, Sacha; Finlay, M. Ray V.; Sarabia, Francisco;
Li, Tianhu
CS Department of Chemistry and Biochemistry, University of California,
California, 92093, USA
SO Chem. Commun. (Cambridge) (1997), (24), 2343-2344
CODEN: CHCOFS; ISSN: 1359-7345
PB Royal Society of Chemistry
DT Journal
LA English
OS CASREACT 128:101936

L22 ANSWER 11 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1997:724919 CAPLUS
DN 127:346221

- TI Synthesis of epothilones A and B in solid and solution phase. [Erratum to document cited in CA127:4950]
- AU Nicolaou, K. C.; Winssinger, N.; Pastor, J.; Ninkovic, S.; Sarabia, F.; He, Y.; Vourloumis, D.; Yang, Z.; Li, T.; Giannakakou, P.; Hamel, E.
- CS Dep. Chemistry, Skaggs Inst. Chem. Biology, Scripps Res. Inst., La Jolla, CA, 92037, USA
- SO Nature (London) (1997), 390(6655), 100
CODEN: NATUAS; ISSN: 0028-0836
- PB Macmillan Magazines
- DT Journal
- LA English
-
- L22 ANSWER 12 OF 18 CAPLUS COPYRIGHT 1999 ACS
- AN 1997:714315 CAPLUS
- DN 128:3560
- TI Designed epothilones: combinatorial synthesis, tubulin assembly properties, and cytotoxic action against taxol-resistant **tumor** cells
- AU Nicolaou, K. C.; Vourloumis, Dionisios; Li, Tianhu; Pastor, Joaquin; Winssinger, Nicolas; He, Yun; Ninkovic, Sacha; Sarabia, Francisco; Vallberg, Hans; Roschangar, Frank; King, N. Paul; Finlay, M. Ray V.; Giannakakou, Pareskevi; Verdier-Pinard, Pascal; Hamel, Ernest
- CS Department of Chemistry and The Skaggs Institute for Chemical Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA
- SO Angew. Chem., Int. Ed. Engl. (1997), 36(19), 2097-2103
CODEN: ACIEAY; ISSN: 0570-0833
- PB Wiley-VCH
- DT Journal
- LA English
-
- L22 ANSWER 13 OF 18 CAPLUS COPYRIGHT 1999 ACS
- AN 1997:714314 CAPLUS
- DN 127:358730
- TI Structure-activity relationships of the epothilones and the first in vivo comparison with paclitaxel
- AU Su, Dai-Shi; Balog, Aaron; Meng, Dongfang; Bertinato, Peter; Danishefsky, Samuel J.; Zheng, Yu-Huang; Chou, Ting-Chao; He, Lifeng; Horwitz, Susan B.
- CS Laboratory for Bioorganic Chemistry, Sloan-Kettering Institute for Cancer Research, New York, NY, 10021, USA
- SO Angew. Chem., Int. Ed. Engl. (1997), 36(19), 2093-2096
CODEN: ACIEAY; ISSN: 0570-0833
- PB Wiley-VCH
- DT Journal
- LA English
-
- L22 ANSWER 14 OF 18 CAPLUS COPYRIGHT 1999 ACS
- AN 1997:528753 CAPLUS
- DN 127:135660
- TI Total Syntheses of Epothilones A and B via a Macrolactonization-Based Strategy
- AU Nicolaou, K. C.; Ninkovic, S.; Sarabia, F.; Vourloumis, D.; He, Y.; Vallberg, H.; Finlay, M. R. V.; Yang, Z.
- CS Department of Chemistry and The Skaggs, Institute for Chemical Biology, La Jolla, CA, 92037, USA
- SO J. Am. Chem. Soc. (1997), 119(34), 7974-7991
CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society
DT Journal
LA English
OS CASREACT 127:135660

L22 ANSWER 15 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1997:430309 CAPLUS
DN 127:108793
TI Stereoselective syntheses and evaluation of compounds in the
8-desmethylepothilone A series: some surprising observations regarding
their chemical and biological properties
AU Balog, Aaron; Betinato, Peter; Su, Dai-Shi; Meng, Dongfang; Sorensen,
Erik; Danishefsky, Samuel J.; Zheng, Yu-Huang; Chou, Ting-Chao; He,
Lifeng; Horwitz, Susan B.
CS Lab. Bioorganic Chem., Sloan-Kettering Inst. Cancer Res., New York, NY,
10021, USA
SO Tetrahedron Lett. (1997), 38(26), 4529-4532
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier
DT Journal
LA English
OS CASREACT 127:108793

L22 ANSWER 16 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1997:330310 CAPLUS
DN 127:4950
TI Synthesis of epothilones A and B in solid and solution phase
AU Nicolaou, K. C.; Winssinger, N.; Pastor, J.; Ninkovic, S.; Sarabia, F.;
He, Y.; Vourloumis, D.; Yang, Z.; Li, T.; Giannakakou, P.; Hamel, E.
CS Dep. Chemistry, Skaggs Inst. Chem. Biology, Scripps Res. Inst., La Jolla,
CA, 92037, USA
SO Nature (London) (1997), 387(6630), 268-272
CODEN: NATUAS; ISSN: 0028-0836
PB Macmillan Magazines
DT Journal
LA English
OS CASREACT 127:4950

L22 ANSWER 17 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1997:302059 CAPLUS
DN 127:4948
TI Total synthesis of (-)-epothilone B: an extension of the Suzuki coupling
method and insights into structure-activity relationships of the
epothilones
AU Su, Dai-Shi; Meng, Dongfang; Bertinato, Peter; Balog, Aaron; Sorensen,
Erik J.; Danishefsky, Samuel J.; Zheng, Yu-Huang; Chou, Ting-Chao; He,
Lifeng; Horwitz, Susan B.
CS Laboratory for Bioorganic Chemistry, Sloan-Kettering Institute for Cancer
Research, New York, NY, 10021, USA
SO Angew. Chem., Int. Ed. Engl. (1997), 36(7), 757-759
CODEN: ACIEAY; ISSN: 0570-0833
PB VCH
DT Journal
LA English
OS CASREACT 127:4948

L22 ANSWER 18 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1997:175662 CAPLUS
DN 126:225133

TI Remote Effects in Macrolide Formation through Ring-Forming Olefin
Metathesis: An Application to the Synthesis of Fully Active Epothilone
Congeners

AU Meng, Dongfang; Su, Dai-Shi; Balog, Aaron; Bertinato, Peter; Sorensen,
Erik J.; Danishefsky, Samuel J.; Zheng, Yu-Huang; Chou, Ting-Chao; He,
Lifeng; Horwitz, Susan B.

CS Laboratories for Bioorganic Chemistry and Biochemical Pharmacology,
Sloan-Kettering Institute for Cancer Research, New York, NY, 10021, USA

SO J. Am. Chem. Soc. (1997), 119(11), 2733-2734
CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

OS CASREACT 126:225133

=> D L23

L23 ANSWER 1 OF 1 CAPLUS COPYRIGHT 1999 ACS

AN 1999:64791 CAPLUS

DN 130:139205

TI syntheses of epothilone derivatives and intermediates for use in treatment

of **hyperproliferative** cellular disease

IN Vite, Gregory D.; Borzilleri, Robert M.; Kim, Soong-hoon; Johnson, James A.

PA Bristol-Myers Squibb Company, USA

SO PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9902514	A2	19990121	WO 98-US12550	19980616
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9879720	A1	19990208	AU 98-79720	19980616
PRAI	US 97-51951		19970708		
	US 97-67524		19971204		
	WO 98-US12550		19980616		
OS	MARPAT 130:139205				

=> D L24

L24 ANSWER 1 OF 1 CAPLUS COPYRIGHT 1999 ACS

AN 1999:126888 CAPLUS

DN 130:196529

TI Preparation of new epothilone derivatives as pharmaceutical agents

IN Klar, Ulrich; Schwede, Wolfgang; Skuballa, Werner; Buchmann, Bernd;
Schirner, Michael

PA Schering Aktiengesellschaft, Germany

SO PCT Int. Appl., 185 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9907692	A2	19990218	WO 98-EP5064	19980810
	WO 9907692	A3	19990514		
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	DE 19735574	A1	19990211	DE 97-19735574	19970809
	DE 19735575	A1	19990211	DE 97-19735575	19970809
	DE 19735578	A1	19990211	DE 97-19735578	19970809
	DE 19748928	A1	19990429	DE 97-19748928	19971024
	DE 19749717	A1	19990506	DE 97-19749717	19971031
	DE 19751200	A1	19990520	DE 97-19751200	19971113
	AU 9893409	A1	19990301	AU 98-93409	19980810
PRAI	DE 97-19735574		19970809		
	DE 97-19735575		19970809		
	DE 97-19735578		19970809		
	DE 97-19748928		19971024		
	DE 97-19749717		19971031		
	DE 97-19751200		19971113		
	DE 98-19813821		19980320		
	WO 98-EP5064		19980810		
OS	MARPAT 130:196529				

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L2 STR
L3 15562 SEA FILE=REGISTRY SUB=L1 SSS FUL L2

ACT COLE084B/A

L4 (64754)SEA FILE=REGISTRY ABB=ON PLU=ON 16/SZS
L5 STR
L6 (15562)SEA FILE=REGISTRY SUB=L4 SSS FUL L5
L7 STR
L8 STR
L9 733 SEA FILE=REGISTRY SUB=L6 SSS FUL L7 OR L8

L10 STR
L11 17 S L10 SSS SAM SUB=L9
L12 273 S L10 SSS FUL SUB=L9

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L13 90 S L12

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FILE 'CAPLUS' ENTERED AT 14:00:05 ON 23 JUN 1999

FILE 'REGISTRY' ENTERED AT 14:01:05 ON 23 JUN 1999
L14 1 S 152044-54-7
L15 1 S 186692-73-9
L16 1 S 189453-10-9

FILE 'CAPLUS' ENTERED AT 14:02:36 ON 23 JUN 1999

FILE 'REGISTRY' ENTERED AT 14:02:50 ON 23 JUN 1999

FILE 'CAPLUS' ENTERED AT 14:03:24 ON 23 JUN 1999

FILE 'REGISTRY' ENTERED AT 14:04:40 ON 23 JUN 1999

FILE 'CAPLUS' ENTERED AT 14:04:54 ON 23 JUN 1999
S 152044-53-6/REG#

FILE 'REGISTRY' ENTERED AT 14:05:37 ON 23 JUN 1999
L17 1 S 152044-53-6/RN

FILE 'CAPLUS' ENTERED AT 14:05:38 ON 23 JUN 1999

FILE 'REGISTRY' ENTERED AT 14:06:37 ON 23 JUN 1999
L18 4 S L14-L17
L19 269 S L12 NOT L18

FILE 'CAPLUS' ENTERED AT 14:08:17 ON 23 JUN 1999
L20 28 S L19

L21 FILE 'CAOLD' ENTERED AT 14:21:47 ON 23 JUN 1999
0 S L19

FILE 'REGISTRY' ENTERED AT 14:21:54 ON 23 JUN 1999

FILE 'REGISTRY' ENTERED AT 14:23:15 ON 23 JUN 1999
SAV L12 COLE084C/A
SAV L18 COLE084D/A

L22 FILE 'CAPLUS' ENTERED AT 14:24:48 ON 23 JUN 1999
18 S L20 AND (?CANCER? OR ?TUMOR? OR ?NEOPLAS?)
L23 1 S L20 AND HYPERPROLIF?
L24 1 S L20 AND ?ANGIOGEN?

L25 FILE 'BIOSIS, MEDLINE' ENTERED AT 14:26:52 ON 23 JUN 1999
0 S L19

L26 FILE 'USPATFULL' ENTERED AT 14:27:55 ON 23 JUN 1999
0 S L19

=> LOG HOL

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	6.43	218.47
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-14.99

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 14:28:33 ON 23 JUN 1999

SUMMARY

COLEMAN

09/084542

Page 1

=> D HIS

(FILE 'HOME' ENTERED AT 13:41:26 ON 23 JUN 1999)

FILE 'REGISTRY' ENTERED AT 13:41:42 ON 23 JUN 1999
ACT COLE084/A

L1 (64754)SEA FILE=REGISTRY ABB=ON PLU=ON 16/SZS
L2 STR
L3 15562 SEA FILE=REGISTRY SUB=L1 SSS FUL L2

ACT COLE084B/A

L4 (64754)SEA FILE=REGISTRY ABB=ON PLU=ON 16/SZS
L5 STR
L6 (15562)SEA FILE=REGISTRY SUB=L4 SSS FUL L5
L7 STR
L8 STR
L9 733 SEA FILE=REGISTRY SUB=L6 SSS FUL L7 OR L8

L10 STR
L11 17 S L10 SSS SAM SUB=L9
L12 273 S L10 SSS FUL SUB=L9

← 273 compounds before removing
Epothilone A, B, C, and D

FILE 'CAPLUS' ENTERED AT 13:49:09 ON 23 JUN 1999
L13 90 S L12

← Wow 90 cites!

FILE 'REGISTRY' ENTERED AT 13:51:28 ON 23 JUN 1999

FILE 'CAPLUS' ENTERED AT 14:00:05 ON 23 JUN 1999

FILE 'REGISTRY' ENTERED AT 14:01:05 ON 23 JUN 1999
L14 1 S 152044-54-7
L15 1 S 186692-73-9
L16 1 S 189453-10-9

} Excluded these

FILE 'CAPLUS' ENTERED AT 14:02:36 ON 23 JUN 1999

FILE 'REGISTRY' ENTERED AT 14:02:50 ON 23 JUN 1999

FILE 'CAPLUS' ENTERED AT 14:03:24 ON 23 JUN 1999

FILE 'REGISTRY' ENTERED AT 14:04:40 ON 23 JUN 1999

FILE 'CAPLUS' ENTERED AT 14:04:54 ON 23 JUN 1999
S 152044-53-6/REG#

Excluded these

FILE 'REGISTRY' ENTERED AT 14:05:37 ON 23 JUN 1999
L17 1 S 152044-53-6/RN

FILE 'CAPLUS' ENTERED AT 14:05:38 ON 23 JUN 1999

FILE 'REGISTRY' ENTERED AT 14:06:37 ON 23 JUN 1999
L18 4 S L14-L17
L19 269 S L12 NOT L18

← 269 compounds after removing
Epothilone A, B, C, + D

FILE 'CAPLUS' ENTERED AT 14:08:17 ON 23 JUN 1999
L20 28 S L19

↑ 28 cites caplus

L21 FILE 'CAOLD' ENTERED AT 14:21:47 ON 23 JUN 1999
0 S L19

FILE 'REGISTRY' ENTERED AT 14:21:54 ON 23 JUN 1999

FILE 'REGISTRY' ENTERED AT 14:23:15 ON 23 JUN 1999
SAV L12 COLE084C/A
SAV L18 COLE084D/A

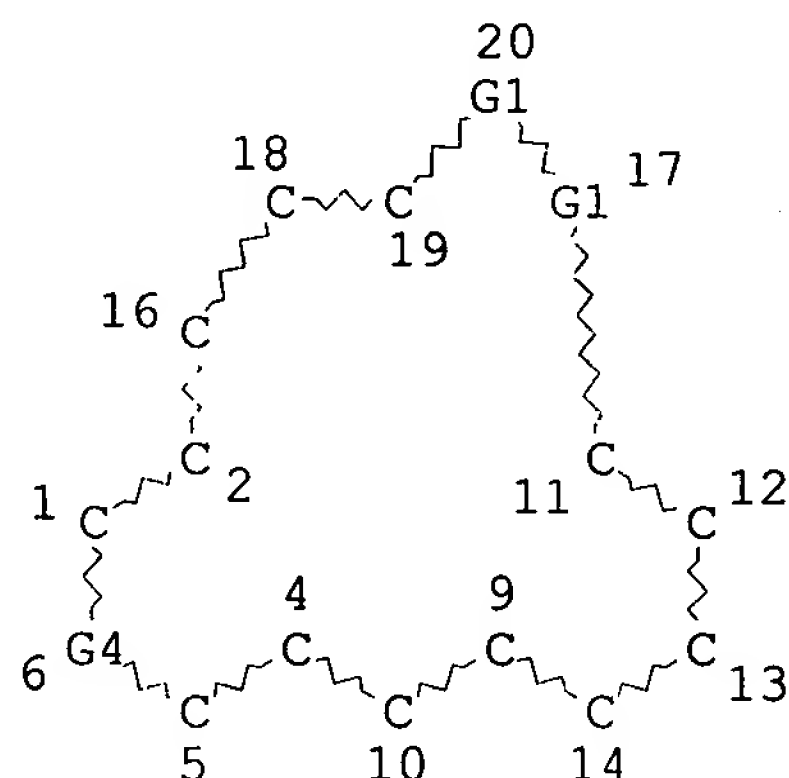
L22 FILE 'CAPLUS' ENTERED AT 14:24:48 ON 23 JUN 1999
18 S L20 AND (?CANCER? OR ?TUMOR? OR ?NEOPLAS?)
L23 1 S L20 AND HYPERPROLIF?
L24 1 S L20 AND ?ANGIOGEN?

L25 FILE 'BIOSIS, MEDLINE' ENTERED AT 14:26:52 ON 23 JUN 1999
0 S L19

L26 FILE 'USPATFULL' ENTERED AT 14:27:55 ON 23 JUN 1999
0 S L19

=> D QUE L19

L4 (64754)SEA FILE=REGISTRY ABB=ON PLU=ON 16/SZS
 L5 STR



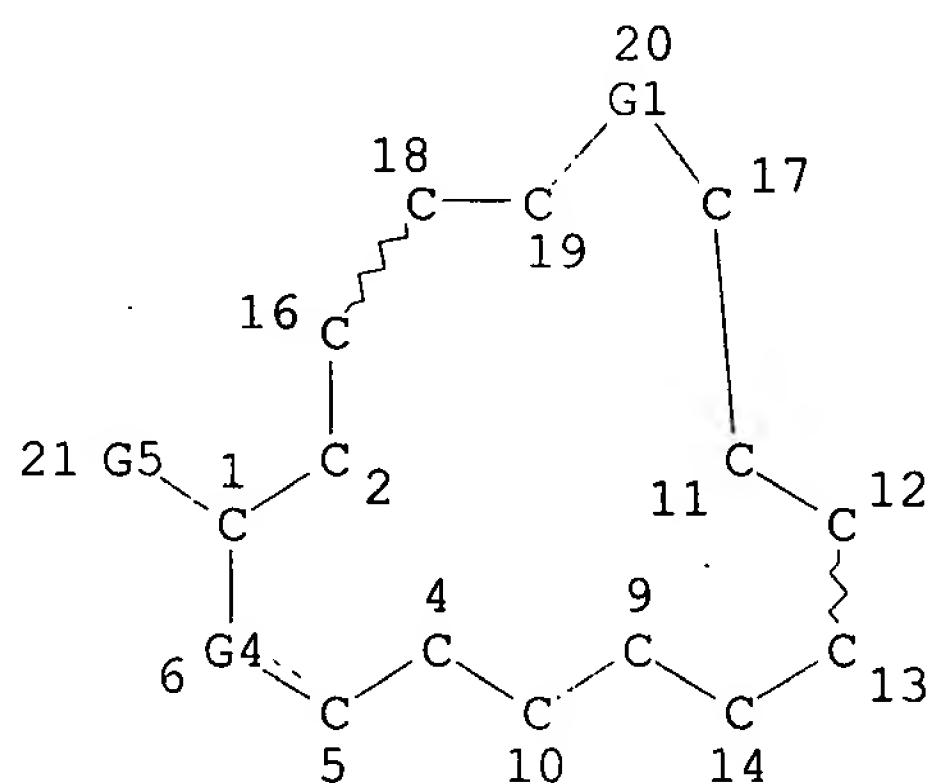
Parent Search

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 VAR G4=O/N
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE

L6 (15562)SEA FILE=REGISTRY SUB=L4 SSS FUL L5
 L7 STR



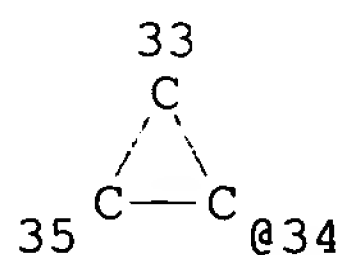
C=C
 22 @23

C-C
 25 @26

N-C
 28 @29

Subset

Hy-C
 31 @32

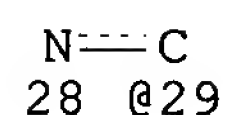
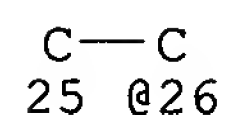
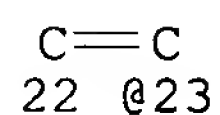
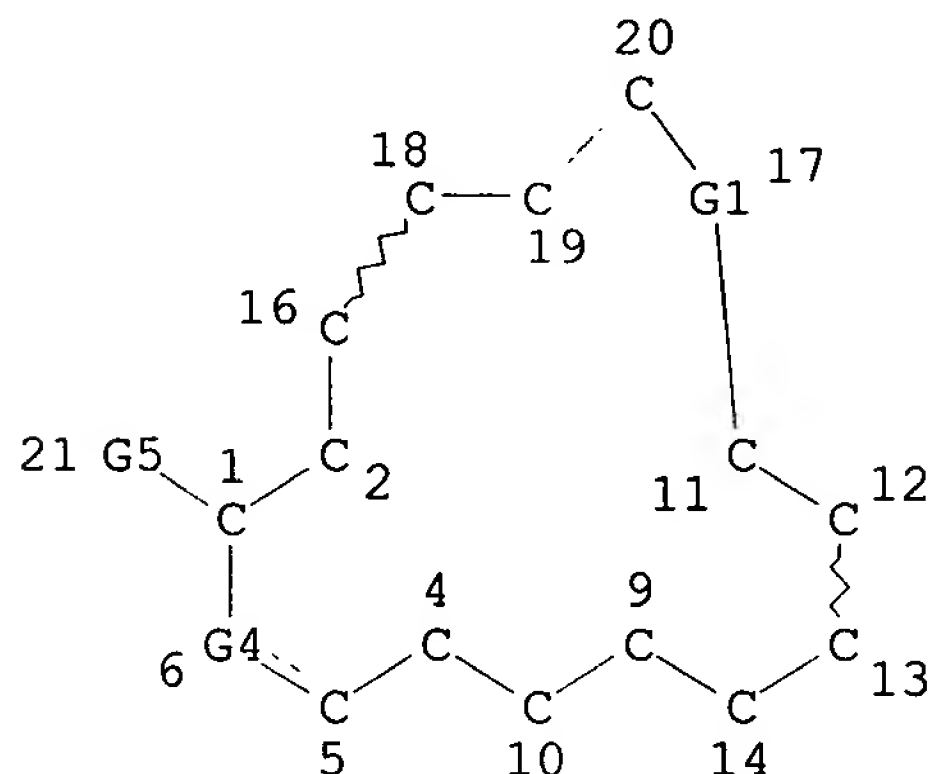


VAR G1=C/O/N/S
 VAR G4=O/N
 VAR G5=23/26/29/32/34

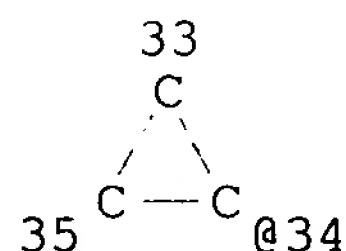
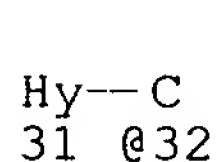
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 28

STEREO ATTRIBUTES: NONE
L8 STR



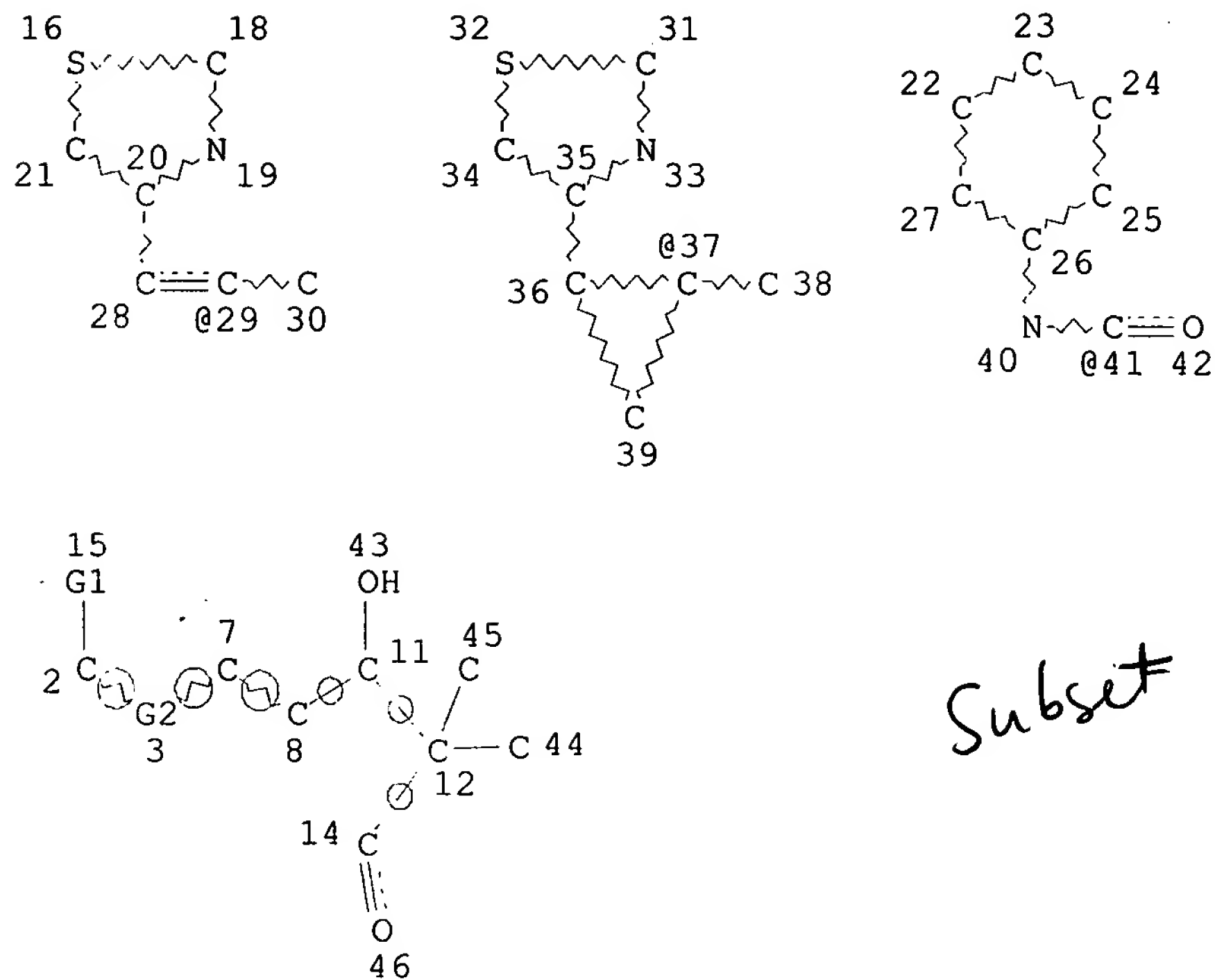
Subset



VAR G1=C/O/N/S
VAR G4=O/N
VAR G5=23/26/29/32/34
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 28

STEREO ATTRIBUTES: NONE
L9 733 SEA FILE=REGISTRY SUB=L6 SSS FUL L7 OR L8
L10 STR



VAR G1=29/37/41

VAR G2=O/N

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

MLEVEL IS CLASS AT 39

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS UNLIMITED AT 39

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 38

STEREO ATTRIBUTES: NONE

L12 273 SEA FILE=REGISTRY SUB=L9 SSS FUL L10

L14 1 SEA FILE=REGISTRY ABB=ON PLU=ON 152044-54-7

L15 1 SEA FILE=REGISTRY ABB=ON PLU=ON 186692-73-9

L16 1 SEA FILE=REGISTRY ABB=ON PLU=ON 189453-10-9

L17 1 SEA FILE=REGISTRY ABB=ON PLU=ON 152044-53-6/RN

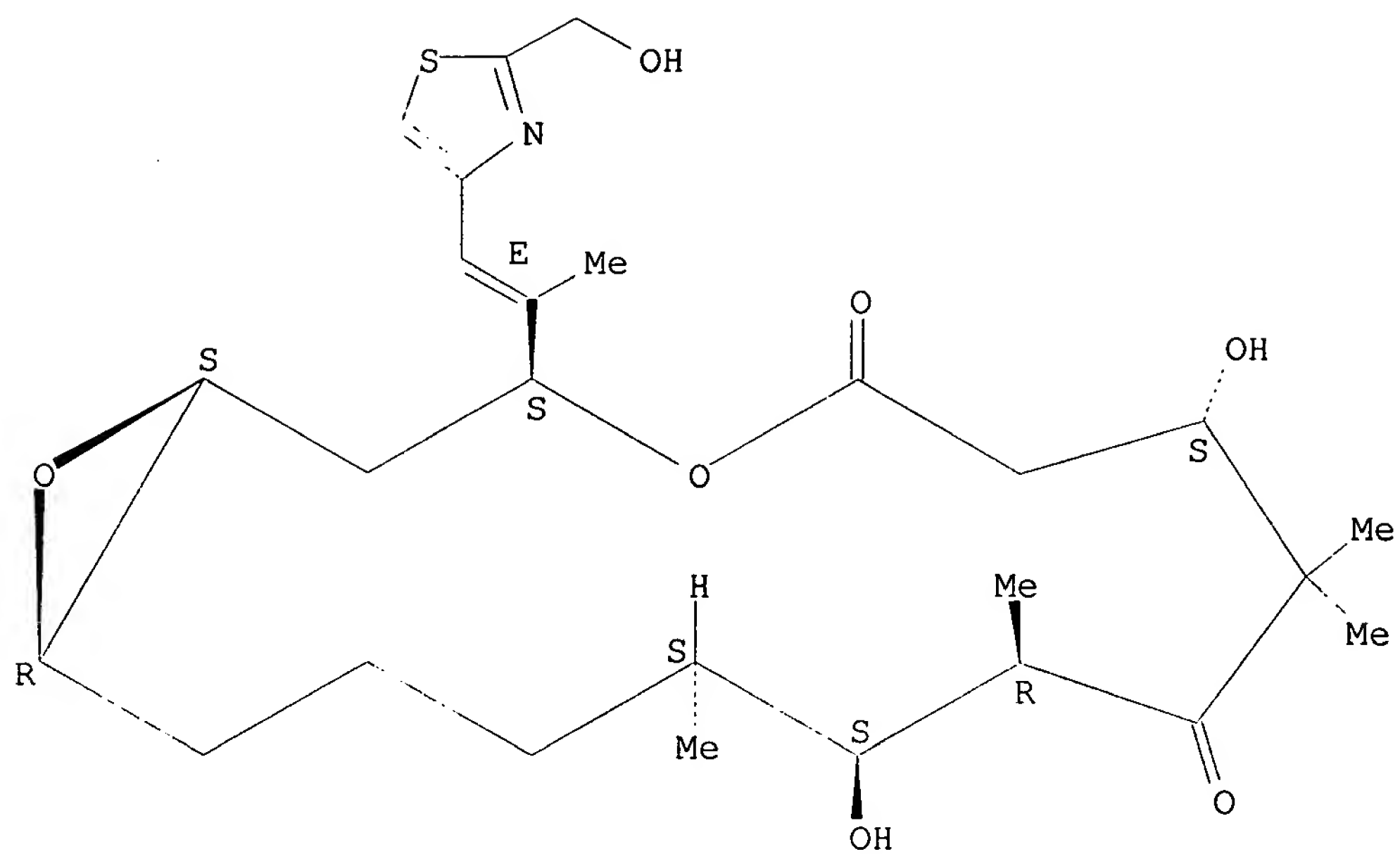
L18 4 SEA FILE=REGISTRY ABB=ON PLU=ON (L14 OR L15 OR L16 OR L17)

L19 269 SEA FILE=REGISTRY ABB=ON PLU=ON L12 NOT L18

=> D BIB ABS HITSTR

L20 ANSWER 1 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1999:214496 CAPLUS
TI Ring-closing metathesis in the synthesis of epothilones and polyether
natural products
AU Nicolaou, K. C.; King, N. Paul; He, Yun
CS Department of Chemistry, Skaggs Institute for Chemical Biology, La Jolla,
CA, USA
SO Top. Organomet. Chem. (1998), 1(Alkene Metathesis in Organic Synthesis),
73-104
CODEN: TORCFV; ISSN: 1436-6002
PB Springer-Verlag
DT Journal; General Review
LA English
AB A review with 34 refs. The increasing popularity of ring-closing
metathesis (RCM) can be attributed to the development of transition metal
complexes as initiators. These compds. efficiently promote the RCM
process, are compatible with a wide range of chem. functionalities and
can be used without recourse to rigorously controlled reaction conditions.
In this chapter, applications of this technol. to the prepn. of the
16-membered macrolactone core of the epothilones culminating in the total
synthesis of epothilones A, B and E will be presented. The prepn. of a
diverse array of analogs using both soln. and solid-phase techniques will
also be discussed. The use of the cyclopentadienyl titanium complexes
for olefination/olefin metathesis will also be described, with particular
emphasis on their potential in the synthesis of polyether natural
products.
IT **201049-37-8P**, Epothilone E
RL: SPN (Synthetic preparation); PREP (Preparation)
(ring-closing metathesis in synthesis of epothilones and polyether
natural products)
RN 201049-37-8 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3-[(1E)-2-
[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-8,8,10,12-tetramethyl-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



=> D BIB ABS HITSTR 2

L20 ANSWER 2 OF 28 CAPLUS COPYRIGHT 1999 ACS

AN 1999:126888 CAPLUS

DN 130:196529

TI Preparation of new epothilone derivatives as pharmaceutical agents

IN Klar, Ulrich; Schwede, Wolfgang; Skuballa, Werner; Buchmann, Bernd;
Schirner, Michael

PA Schering Aktiengesellschaft, Germany

SO PCT Int. Appl., 185 pp.

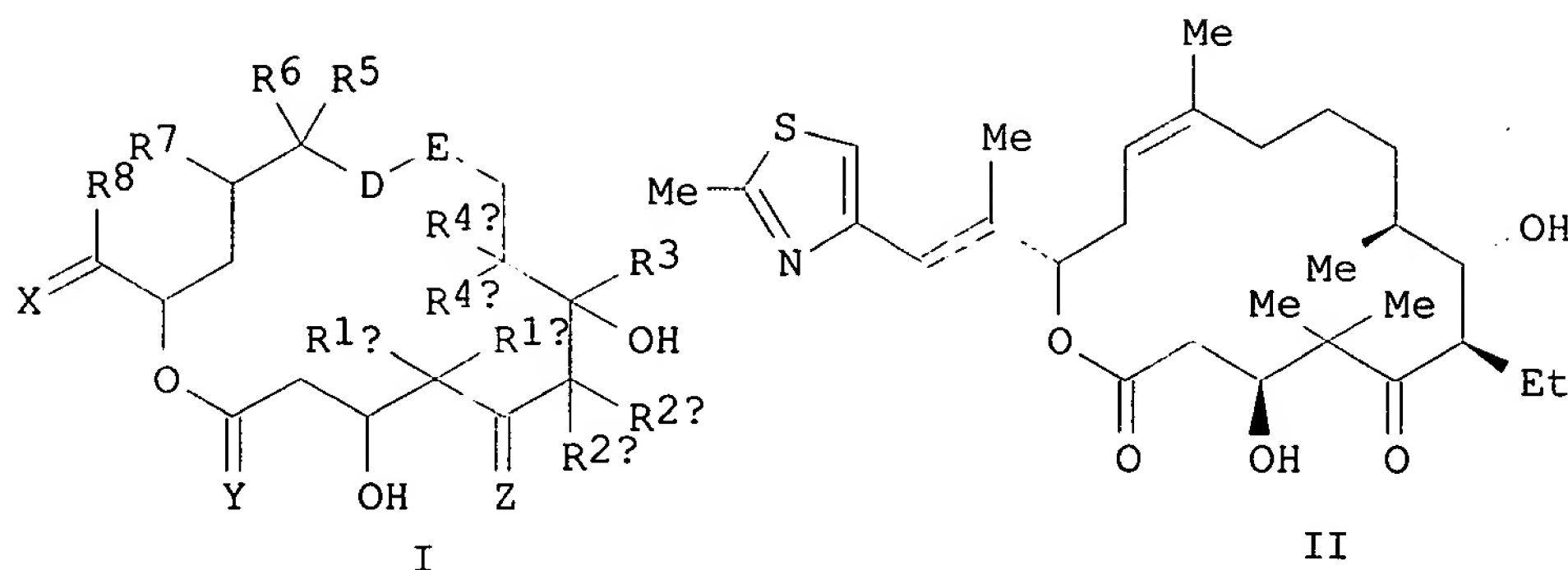
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9907692	A2	19990218	WO 98-EP5064	19980810
	WO 9907692	A3	19990514		
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	DE 19735574	A1	19990211	DE 97-19735574	19970809
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	DE 19749717	A1	19990506	DE 97-19749717	19971031
	DE 19751200	A1	19990520	DE 97-19751200	19971113
	AU 9893409	A1	19990301	AU 98-93409	19980810
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	DE 97-19751200		19971113		
	DE 98-19813821		19980320		
	WO 98-EP5064		19980810		
OS	MARPAT 130:196529				
GI					



AB Epothilone derivs. of formula I [X = O, alkylene-.alpha.,.omega.-dioxy, two alkoxy groups, etc.; Y = O, H₂; Z = O, (H, OH), (H, protected OH); R_{1a}, R_{1b} = H, alkyl, aryl, aralkyl, or together = (CH₂)_m where m = 2, 3, 4, 5; R_{2a}, R_{2b} = H, alkyl, aryl, aralkyl, or together = (CH₂)_n where n = 2, 3, 4, 5; when D-E = CH₂CH₂ or when Y = O, R_{2a} or R_{2b} may not be H/Me; R₃ = H, alkyl, aryl, aralkyl; R_{4a}, R_{4b} = H, alkyl, aryl, aralkyl, or together = (CH₂)_p where p = 2, 3, 4, 5; D-E = CH₂CH₂, CH:CH, C.tplbond.C, 2,3-oxiranediy, CH(OH)CH(OH), CH(OH)CH₂; R₅ = H, alkyl, aryl, aralkyl; R₆, R₇ = H, together = a satd. bond or O; R₈ = H, alkyl, aryl, aralkyl

all

of which may be substituted] are prepd. Thus, the title compds. (4S,7R,8S,9S,13E,16S(E))- and (4S,7R,8S,9S,13Z,16S(E))-4,8-dihydroxy-7-ethyl-16-(1-methyl-2-(2-methyl-4-thiazolyl)ethenyl)-1-oxa-5,5,9,13-tetramethylcyclohexadec-13-en-2,6-dione (II) were prepd. in many steps. The new compds. interact with tubulin by stabilizing formed microtubuli. They are capable of influencing cell division in a phase-specific manner and are suitable for the treatment of malignant tumors, such as ovarian, gastric, colon, breast, lung, head and neck carcinoma, adenocarcinoma, malignant melanoma, and acute lymphocytic and myelocytic leukemia. They are also suited for anti-angiogenesis therapy and for the treatment of chronic inflammatory diseases (psoriasis, arthritis). To prevent uncontrolled cell growth on, and for better tolerability of, medical implants, the derivs. can be introduced into or applied to polymeric materials. The compds. provided for in the invention can be used alone or, to achieve additive or synergistic effects, in combination with other principles and substance categories used in tumor therapy.

IT 220773-43-3P 220773-46-6P 220773-47-7P
220773-62-6P 220773-63-7P 220773-68-2P
220773-69-3P

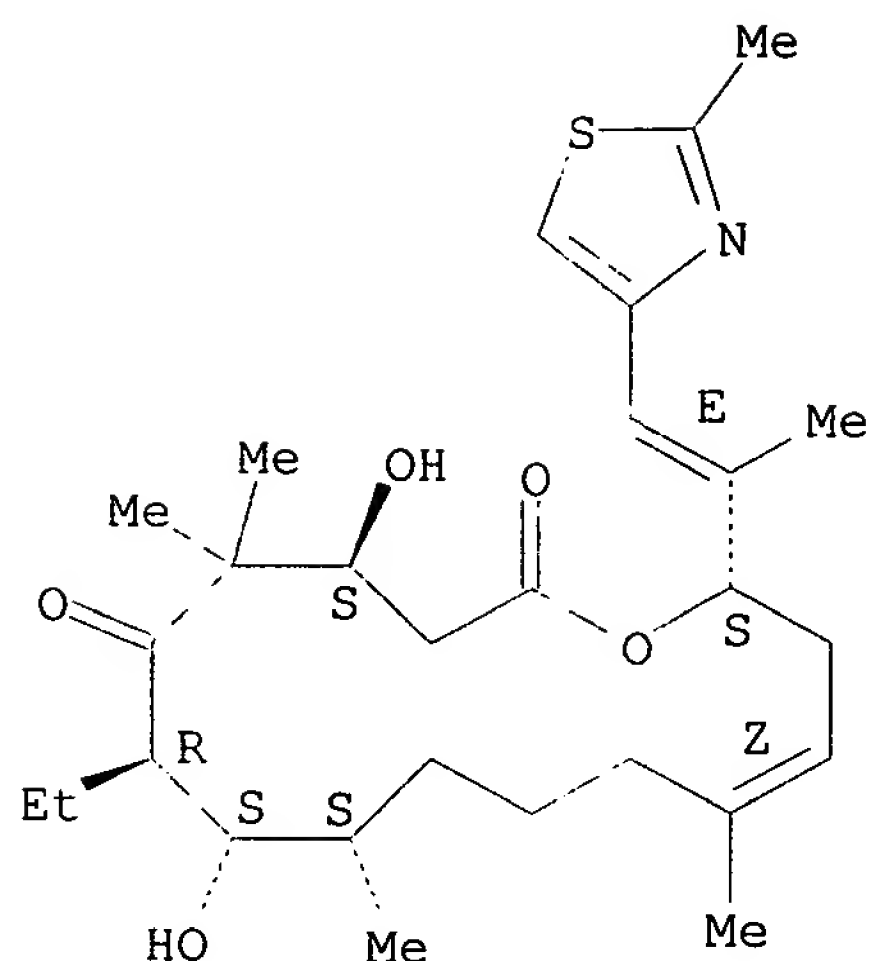
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant);

SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of epothilone derivs. as antitumor agents)

RN 220773-43-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 7-ethyl-4,8-dihydroxy-5,5,9,13-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

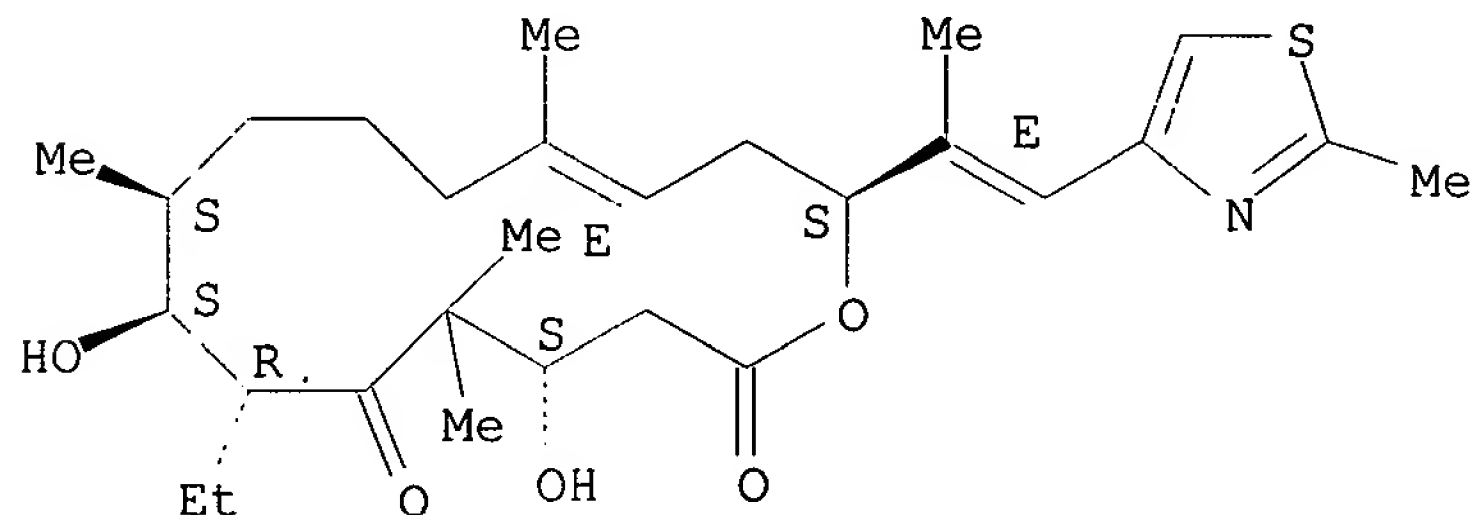


RN 220773-46-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 7-ethyl-4,8-dihydroxy-5,5,9,13-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

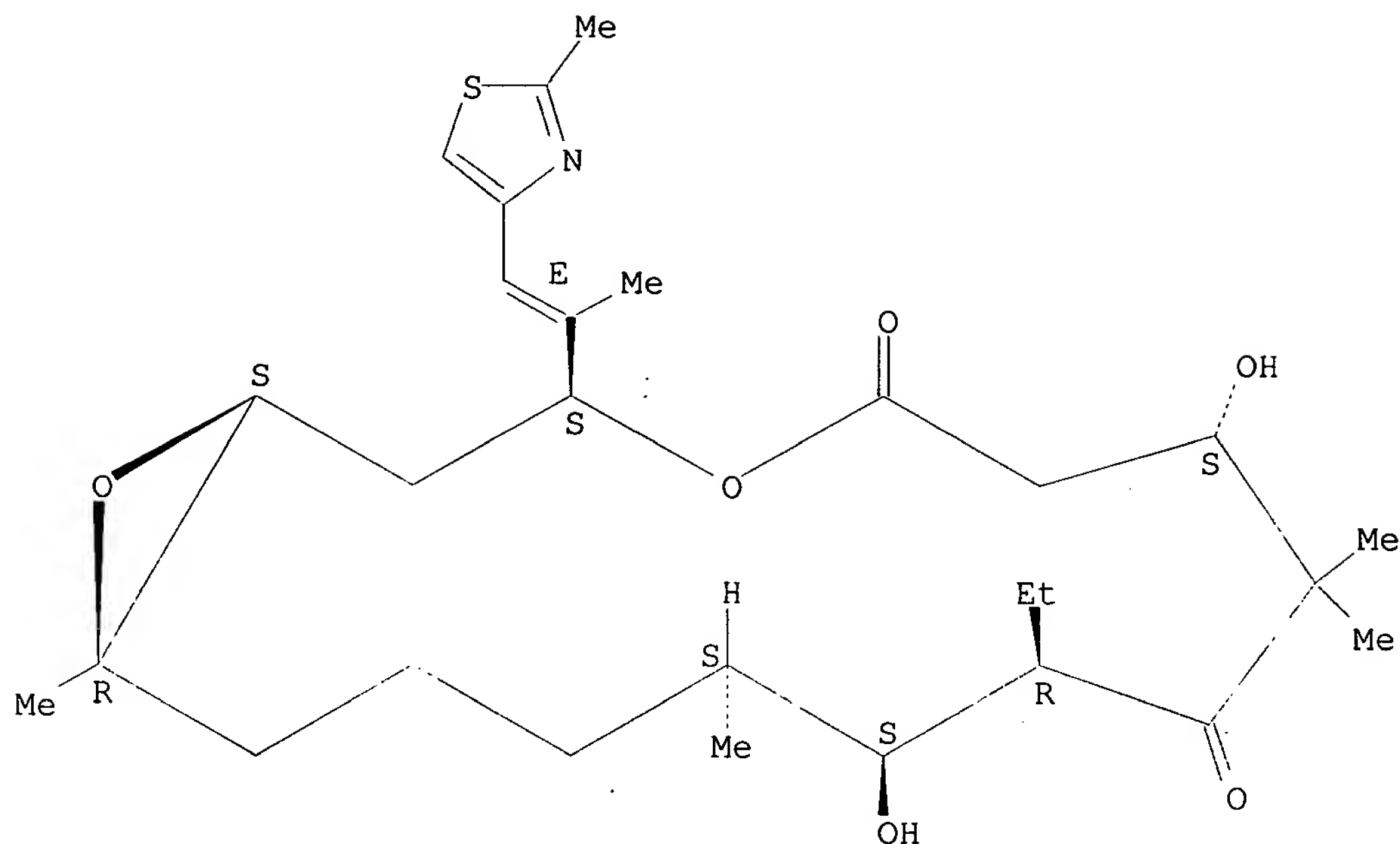


RN 220773-47-7 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 10-ethyl-7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

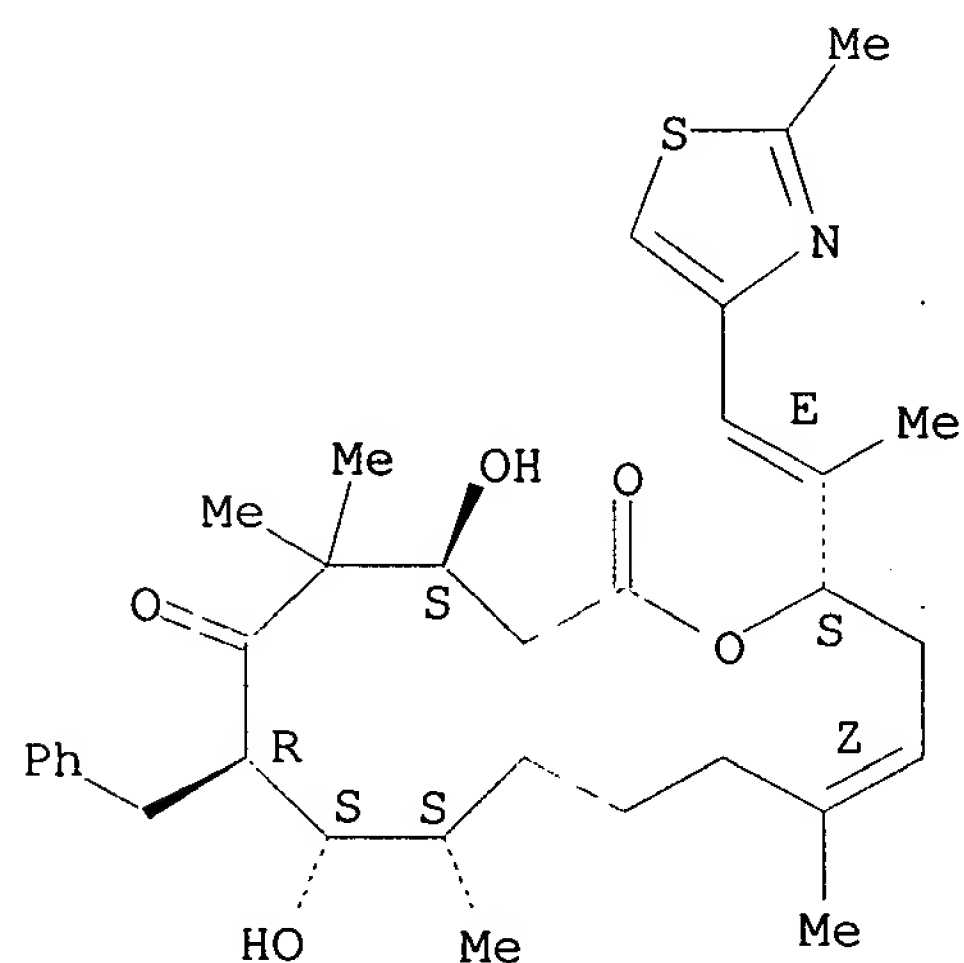
Double bond geometry as shown.



RN 220773-62-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,9,13-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-7-(phenylmethyl)-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

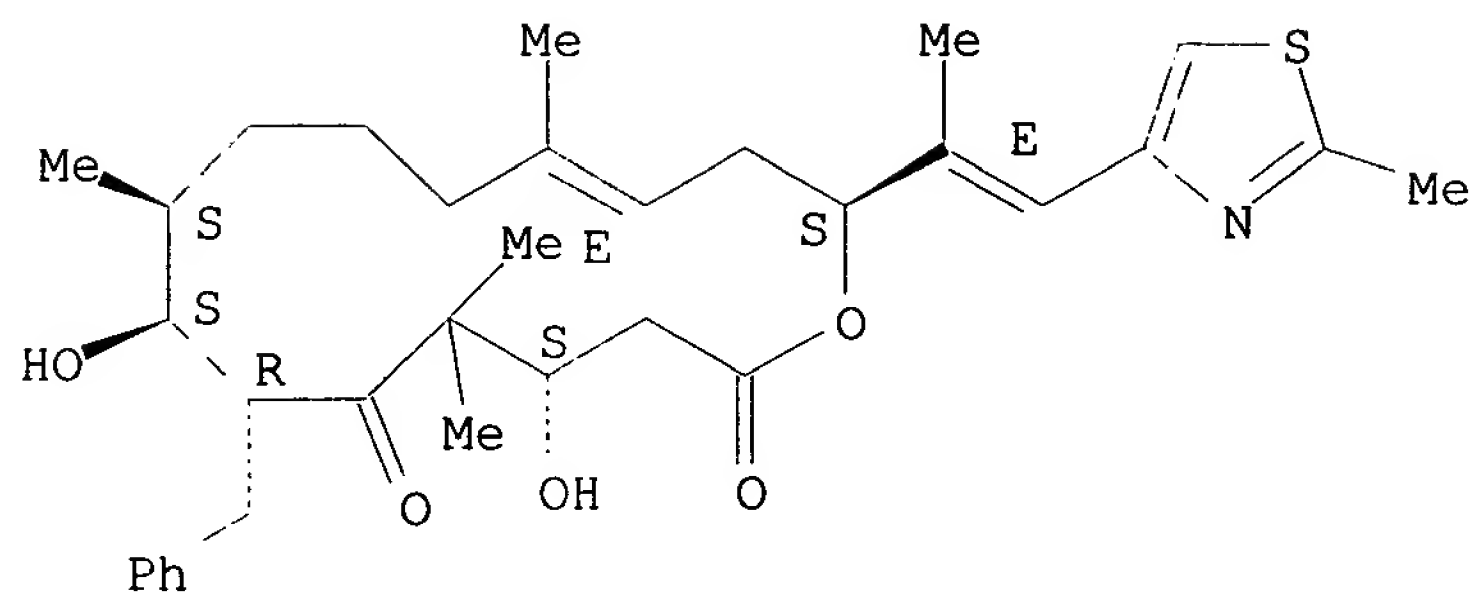
Absolute stereochemistry.
Double bond geometry as shown.



RN 220773-63-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,9,13-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-7-(phenylmethyl)-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

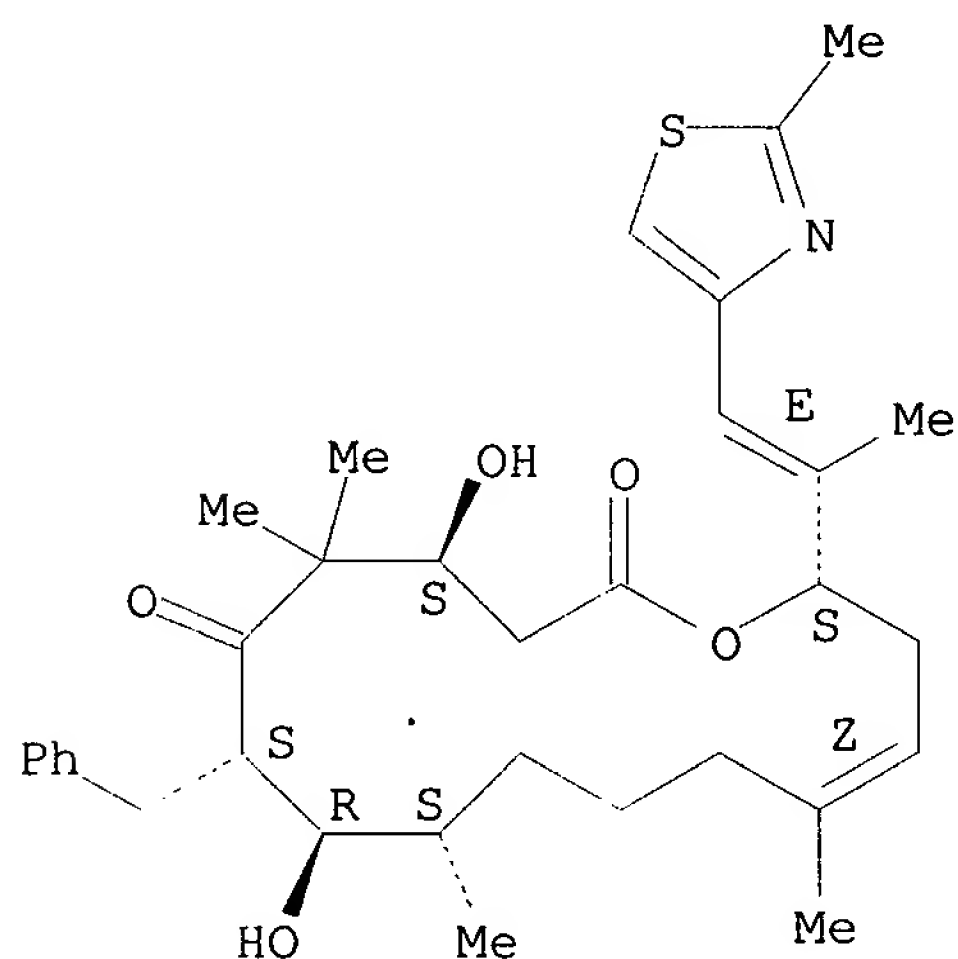
Absolute stereochemistry.
Double bond geometry as shown.



RN 220773-68-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,9,13-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-7-(phenylmethyl)-,
(4S,7S,8R,9S,13Z,16S)- (9CI) (CA INDEX NAME)

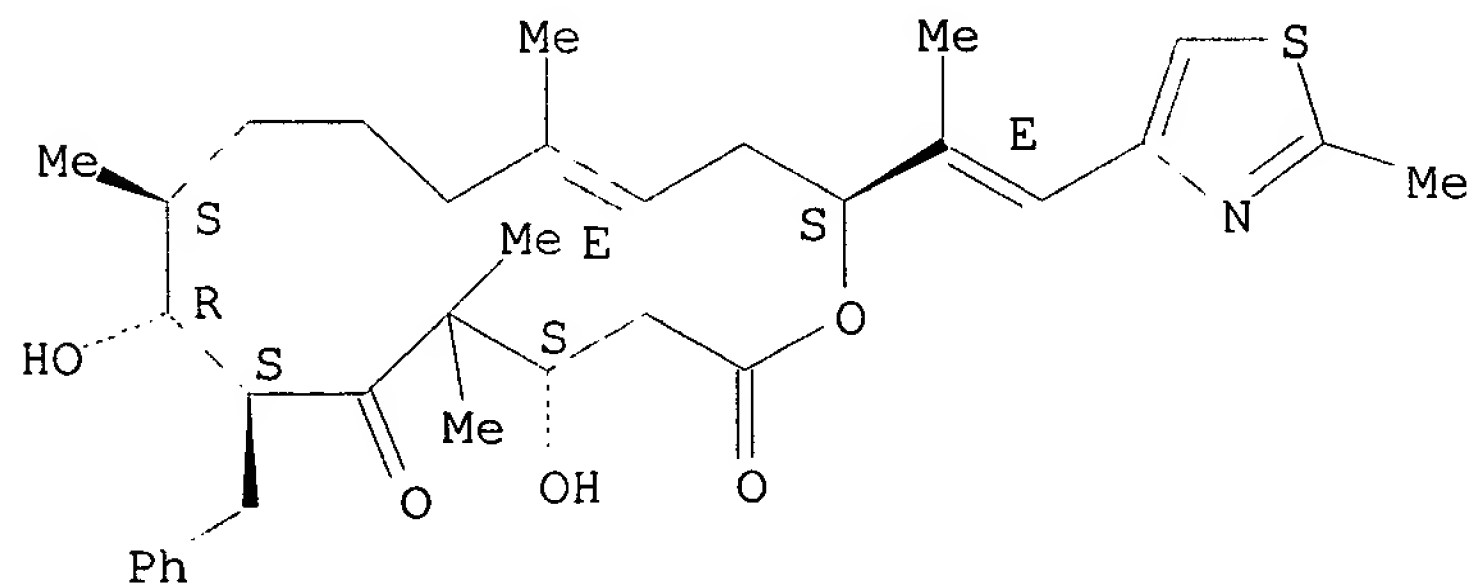
Absolute stereochemistry.
Double bond geometry as shown.



RN 220773-69-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,9,13-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-7-(phenylmethyl)-,
(4S,7S,8R,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT 220773-48-8P 220773-49-9P 220773-50-2P
220773-61-5P 220773-64-8P 220773-65-9P
220773-66-0P 220773-67-1P 220773-70-6P
220773-71-7P 220773-72-8P 220776-11-4P
220776-13-6P 220776-15-8P 220776-17-0P
220776-19-2P 220776-20-5P 220776-21-6P
220776-22-7P 220776-23-8P 220776-24-9P
220776-25-0P 220776-26-1P 220776-27-2P
220776-28-3P 220776-29-4P 220776-30-7P
220776-31-8P 220776-32-9P 220776-42-1P
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220776-61-4P 220776-62-5P 220776-63-6P
220776-64-7P 220776-65-8P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

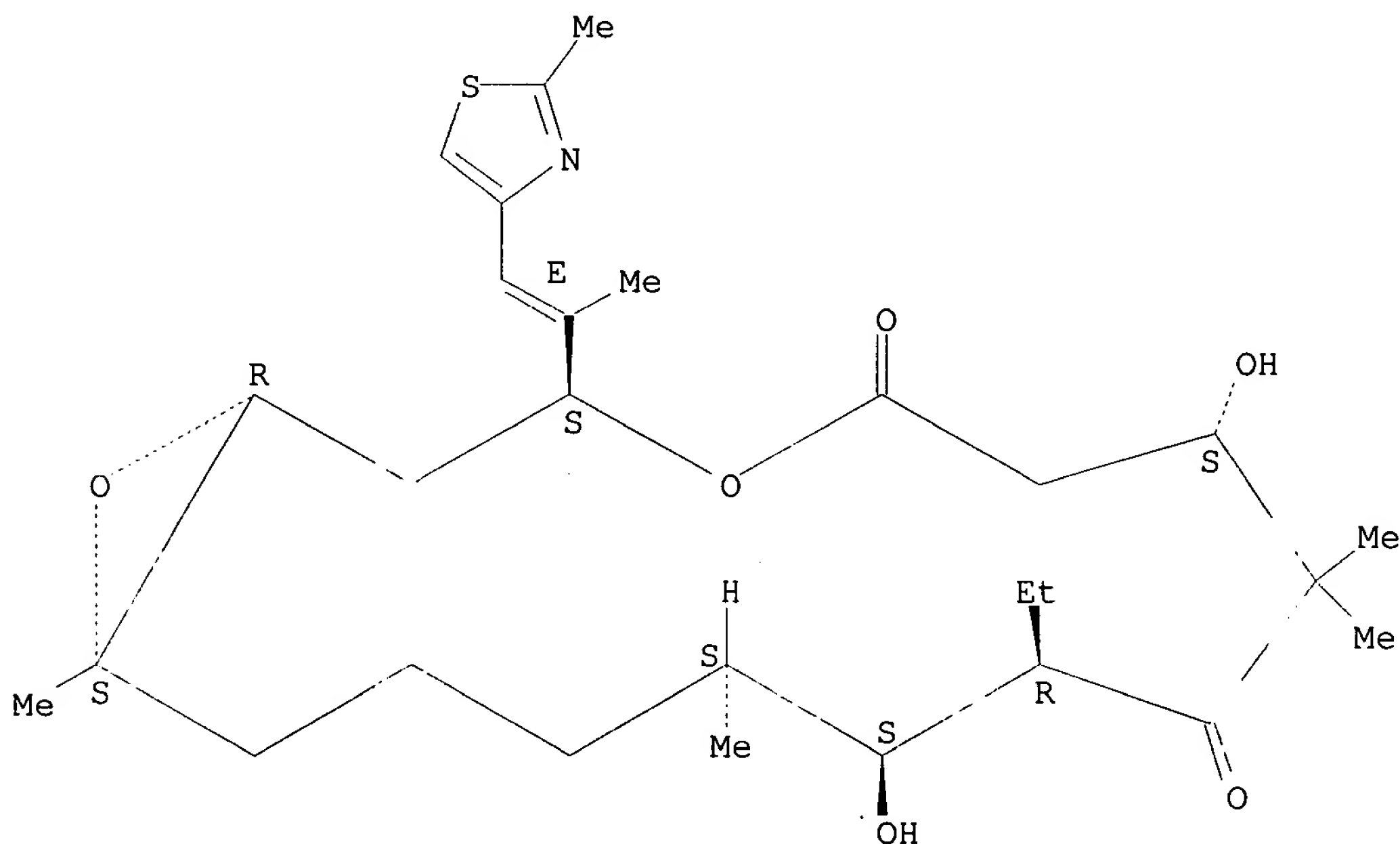
(prepn. of epothilone derivs. as antitumor agents)

RN 220773-48-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 10-ethyl-7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

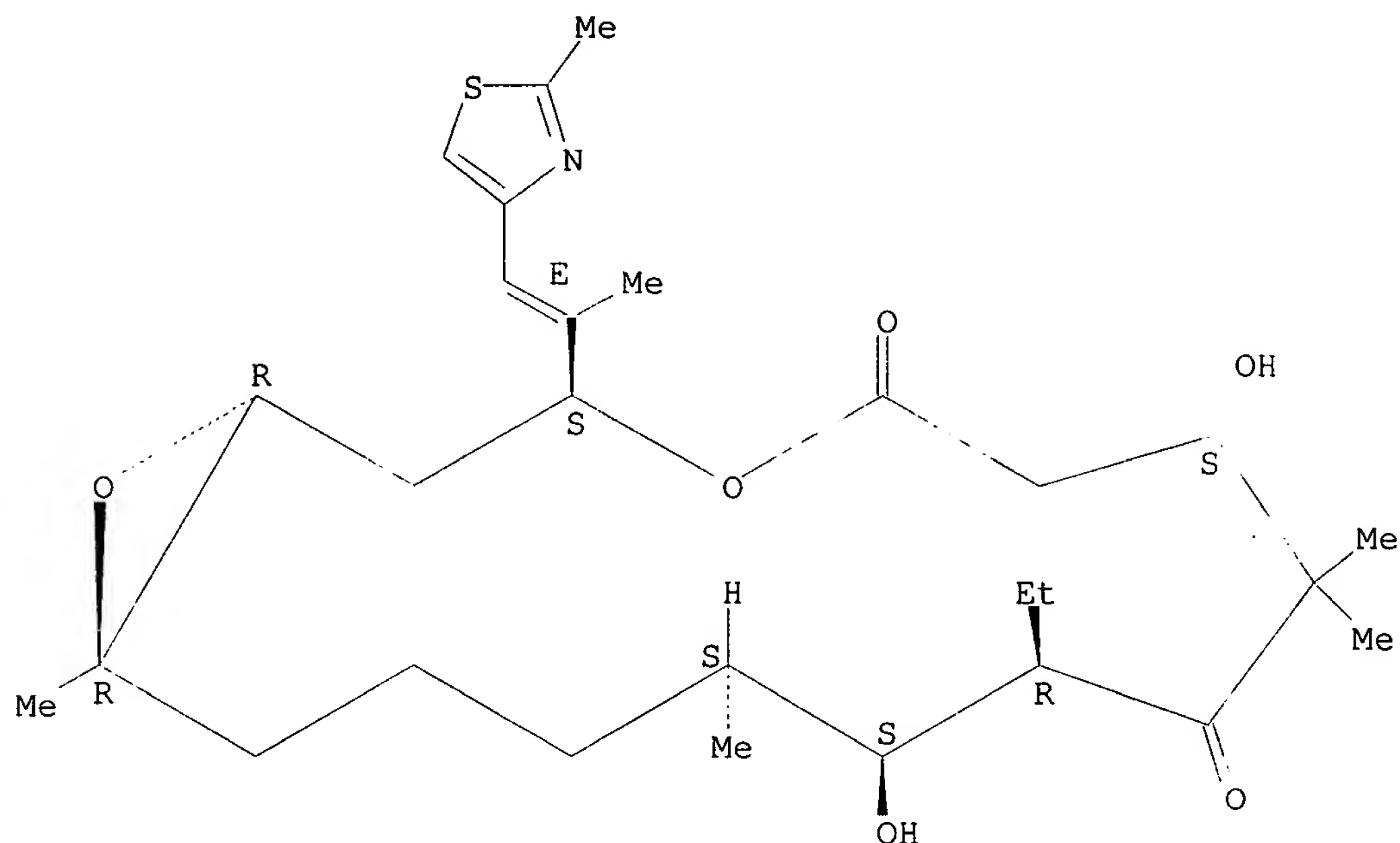


RN 220773-49-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 10-ethyl-7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

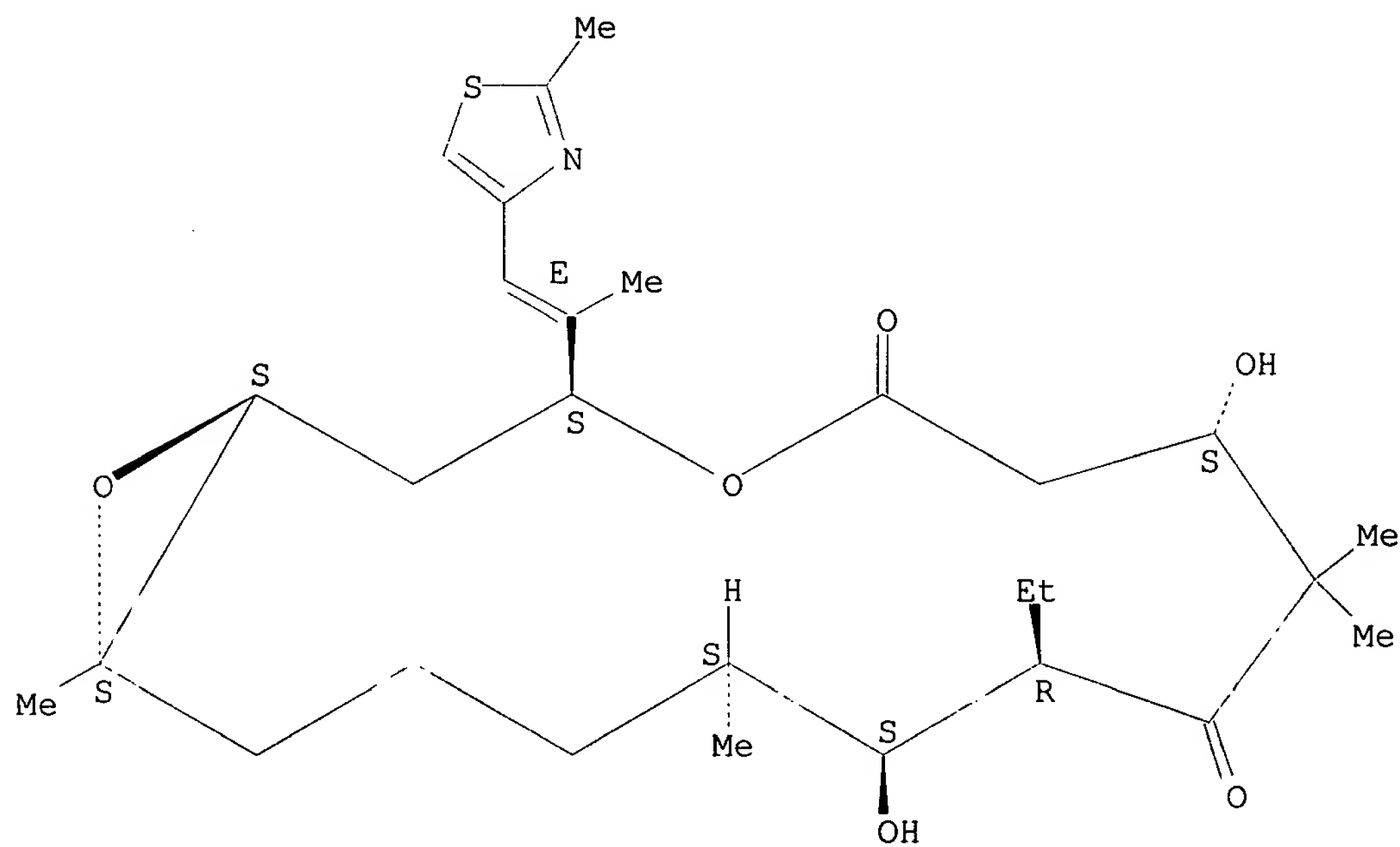


RN 220773-50-2 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 10-ethyl-7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

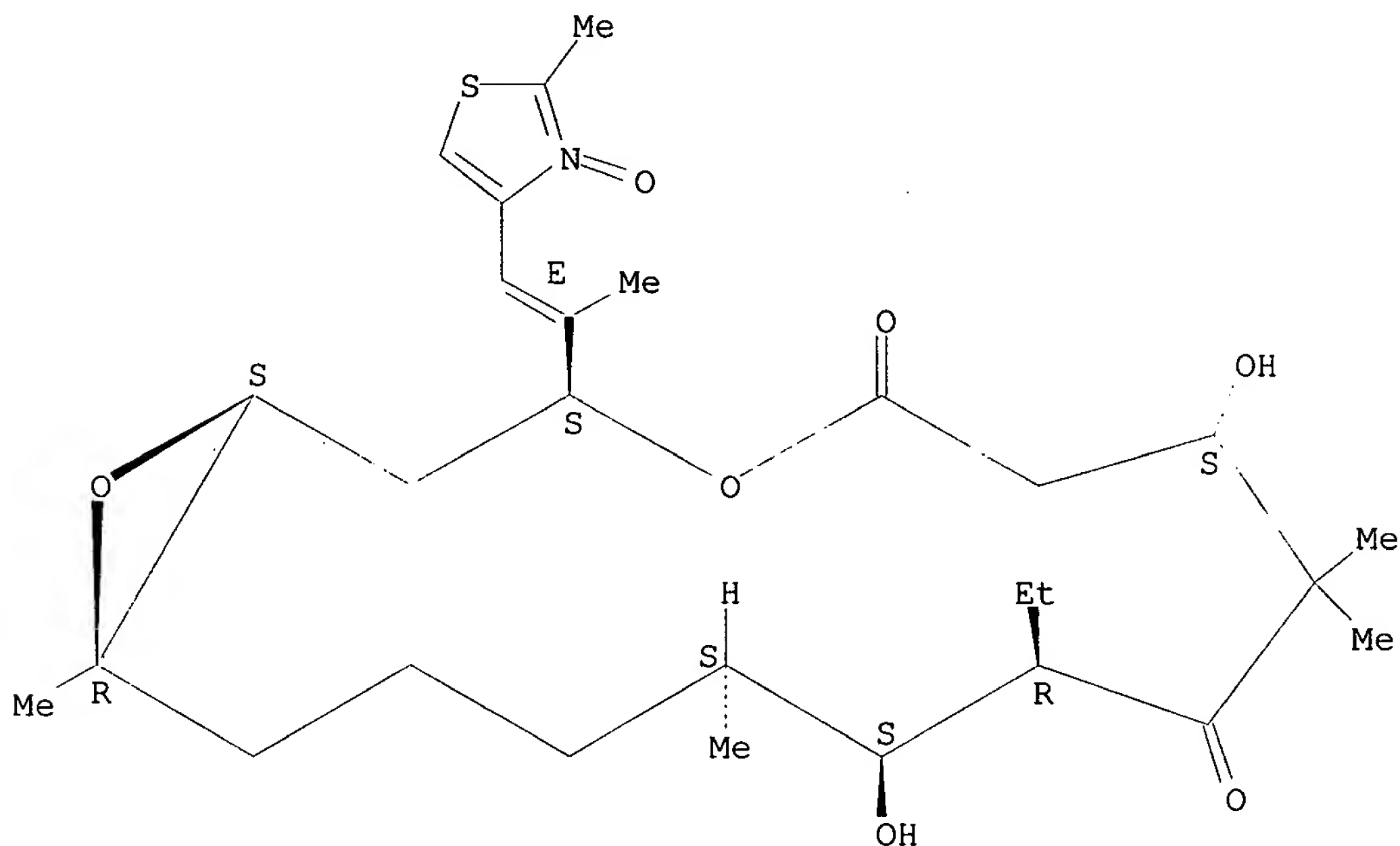
Double bond geometry as shown.



RN 220773-61-5 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 10-ethyl-7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-3-oxido-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

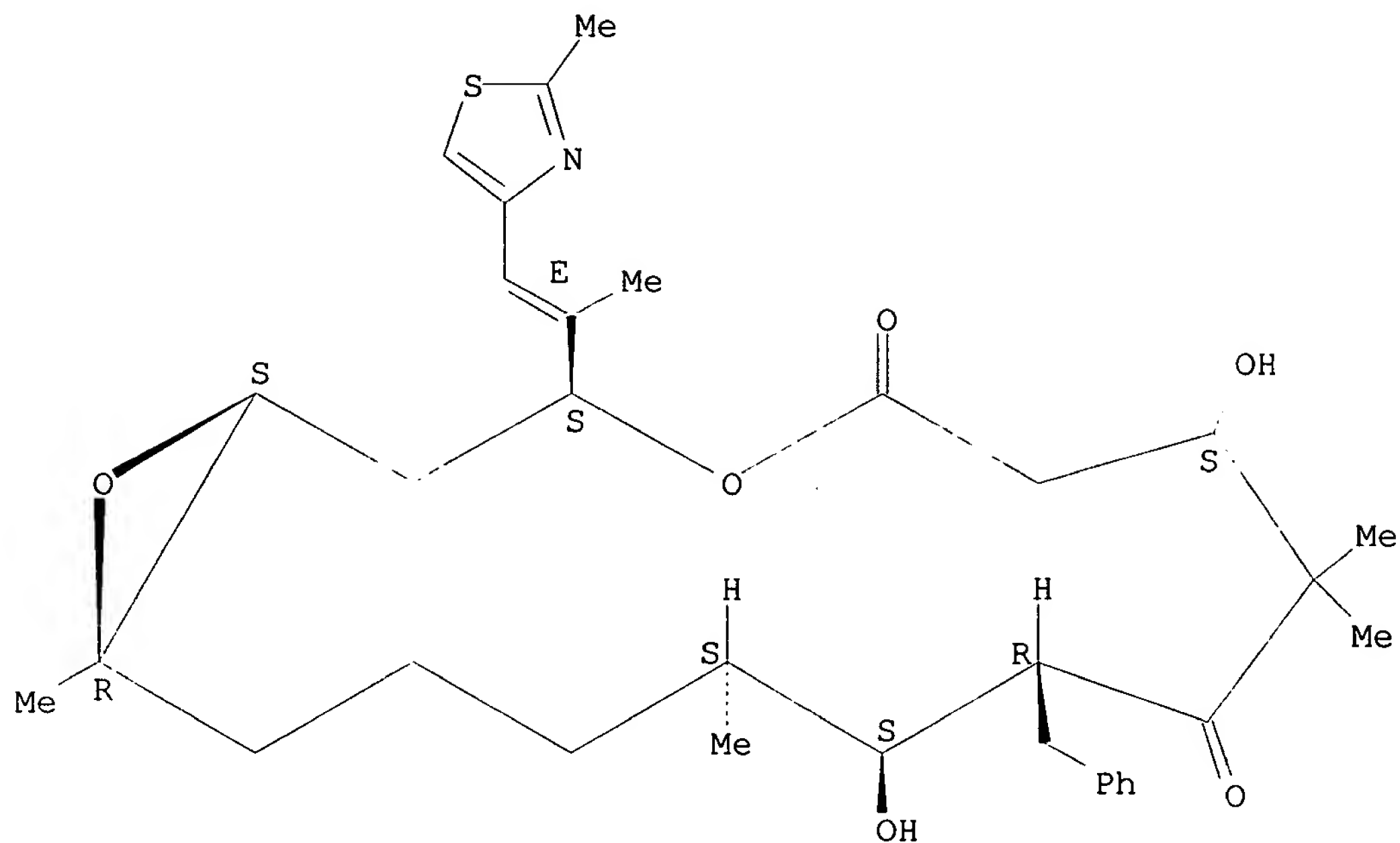
Absolute stereochemistry.
Double bond geometry as shown.



RN 220773-64-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-(phenylmethyl)-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

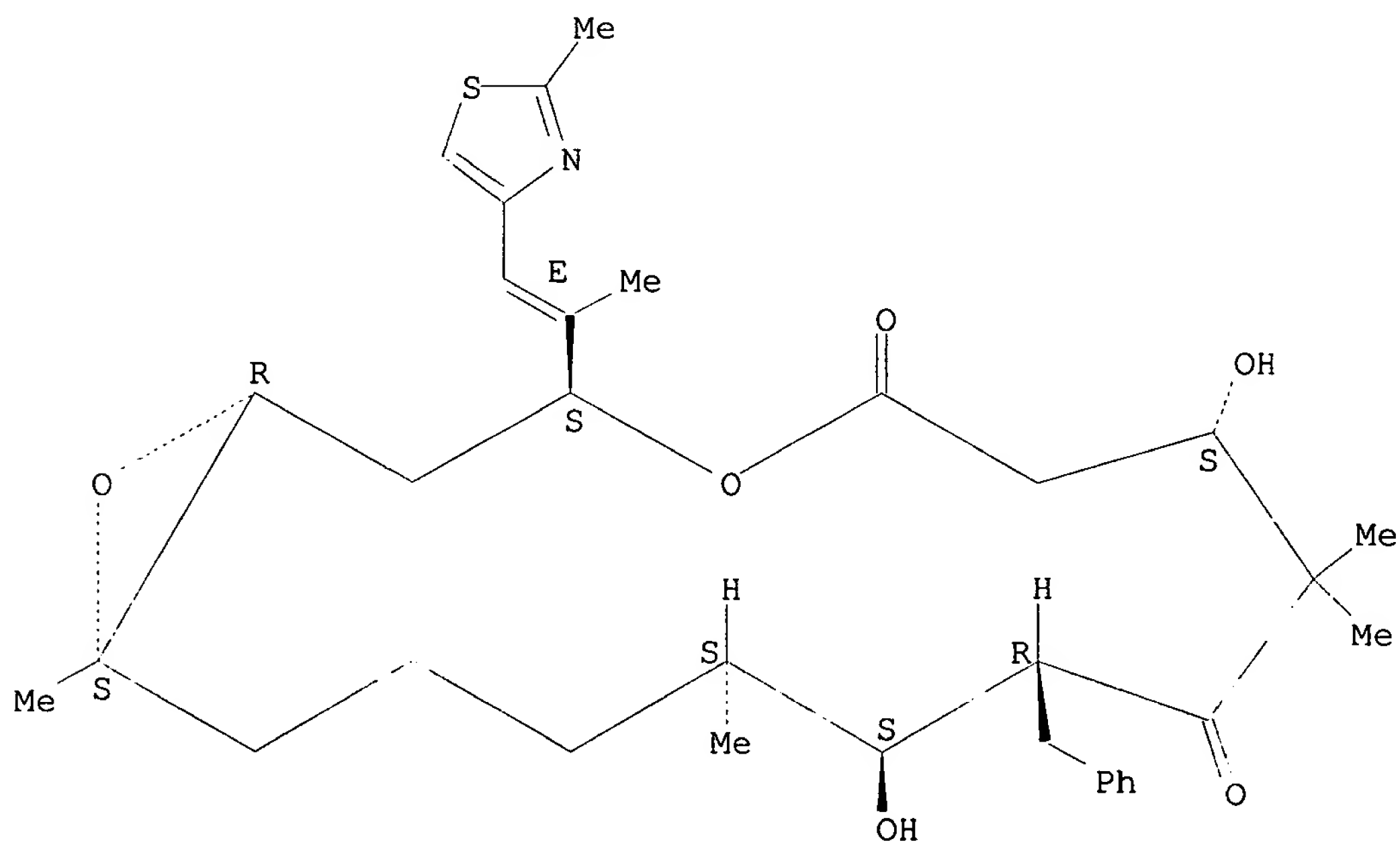
Absolute stereochemistry.
Double bond geometry as shown.



RN 220773-65-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-(phenylmethyl)-, (1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

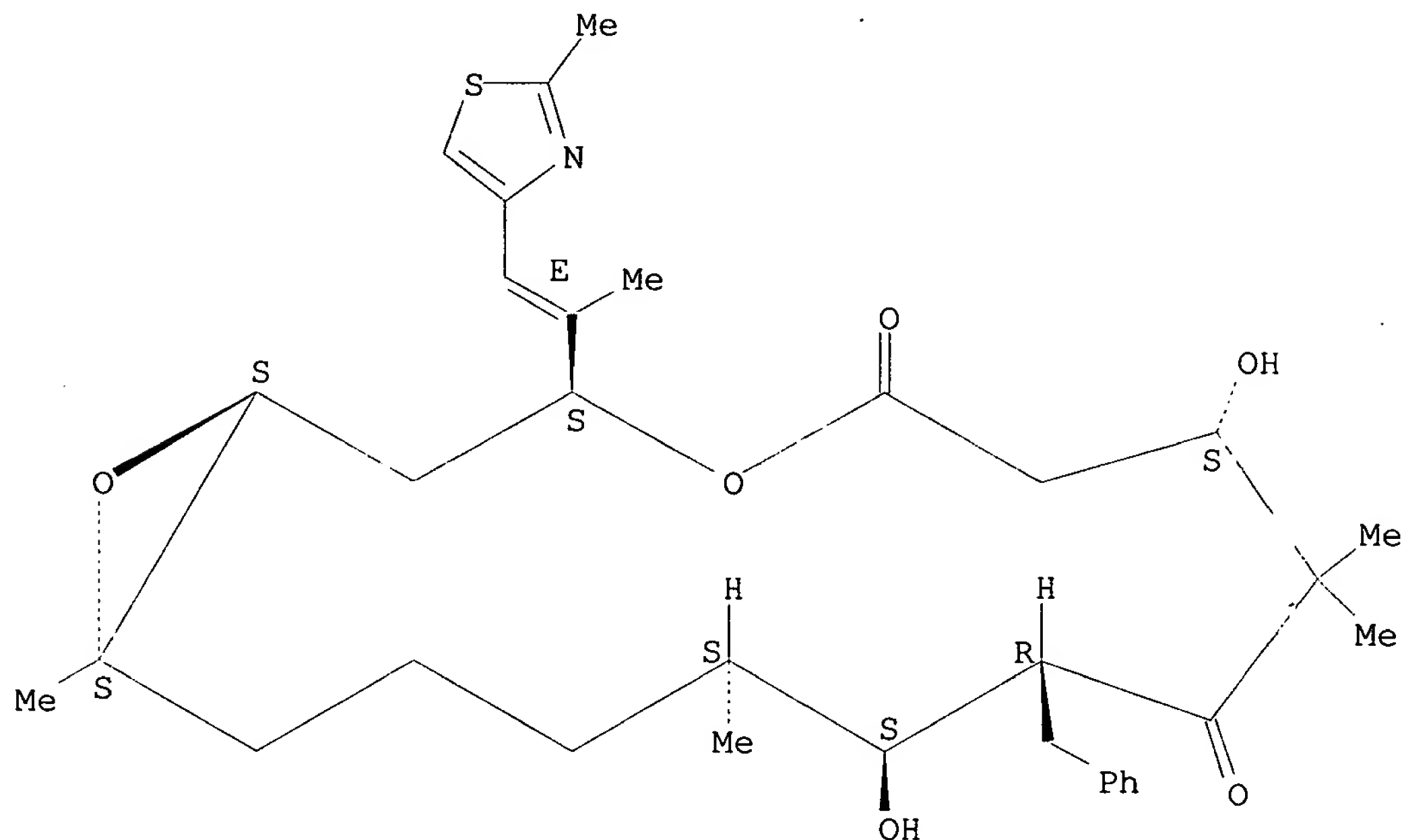


RN 220773-66-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,12,16-

tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-(phenylmethyl)-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

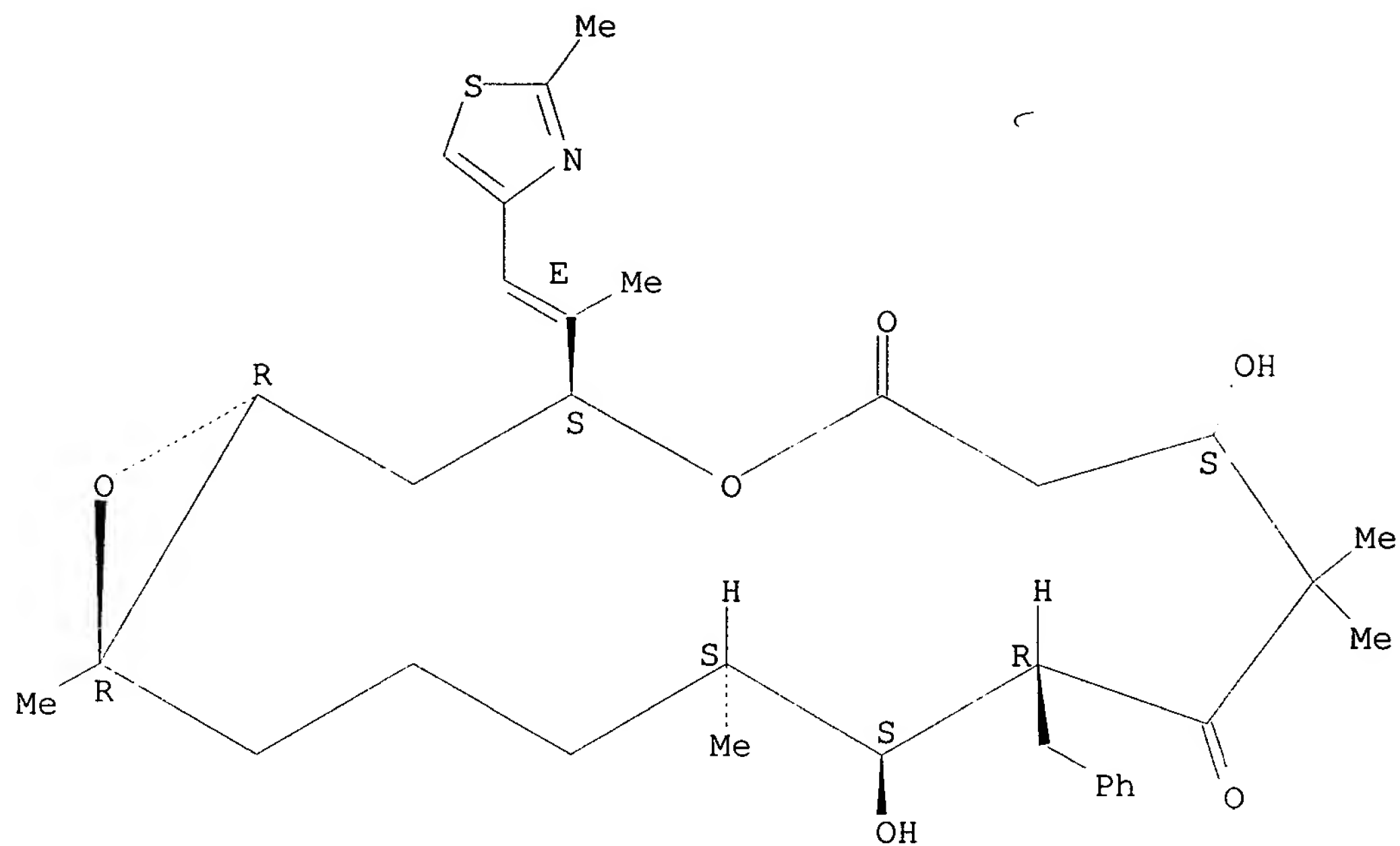
Absolute stereochemistry.
Double bond geometry as shown.



RN 220773-67-1 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-(phenylmethyl)-, (1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

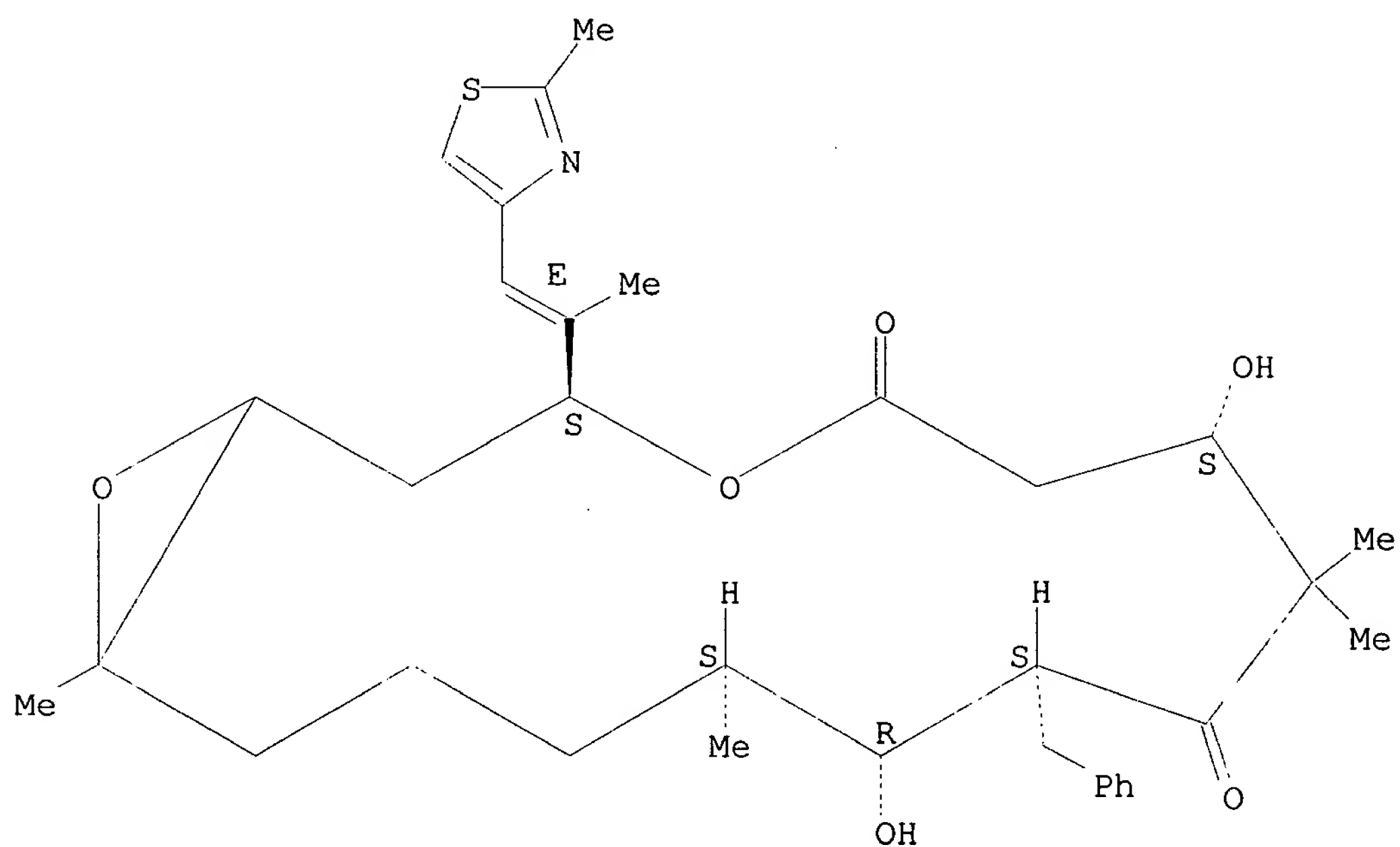
Absolute stereochemistry.
Double bond geometry as shown.



RN 220773-70-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-(phenylmethyl)-, (3S,7S,10S,11R,12S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

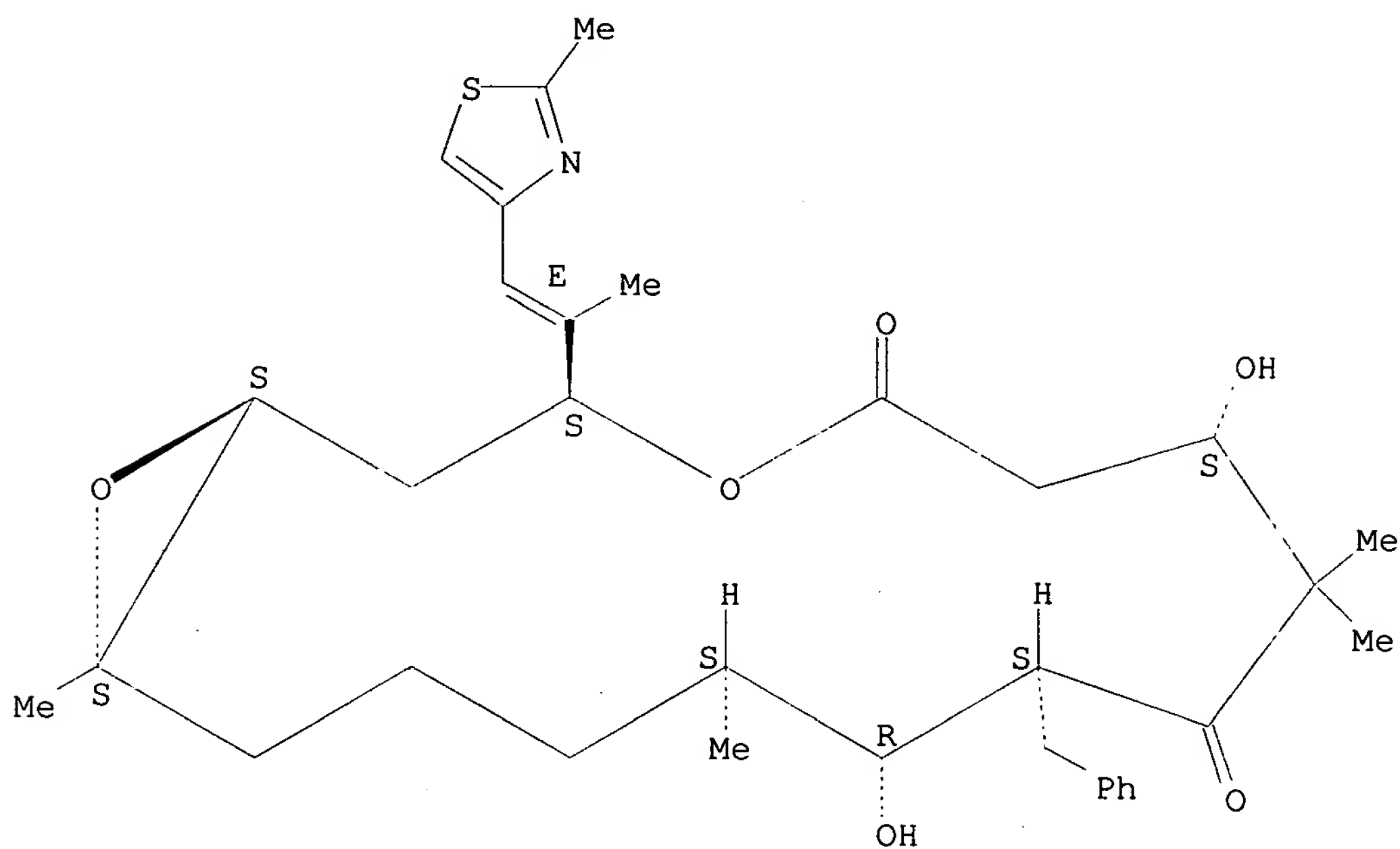


RN 220773-71-7 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,12,16-

tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-(phenylmethyl)-, (1S,3S,7S,10S,11R,12S,16S)- (9CI) (CA INDEX NAME)

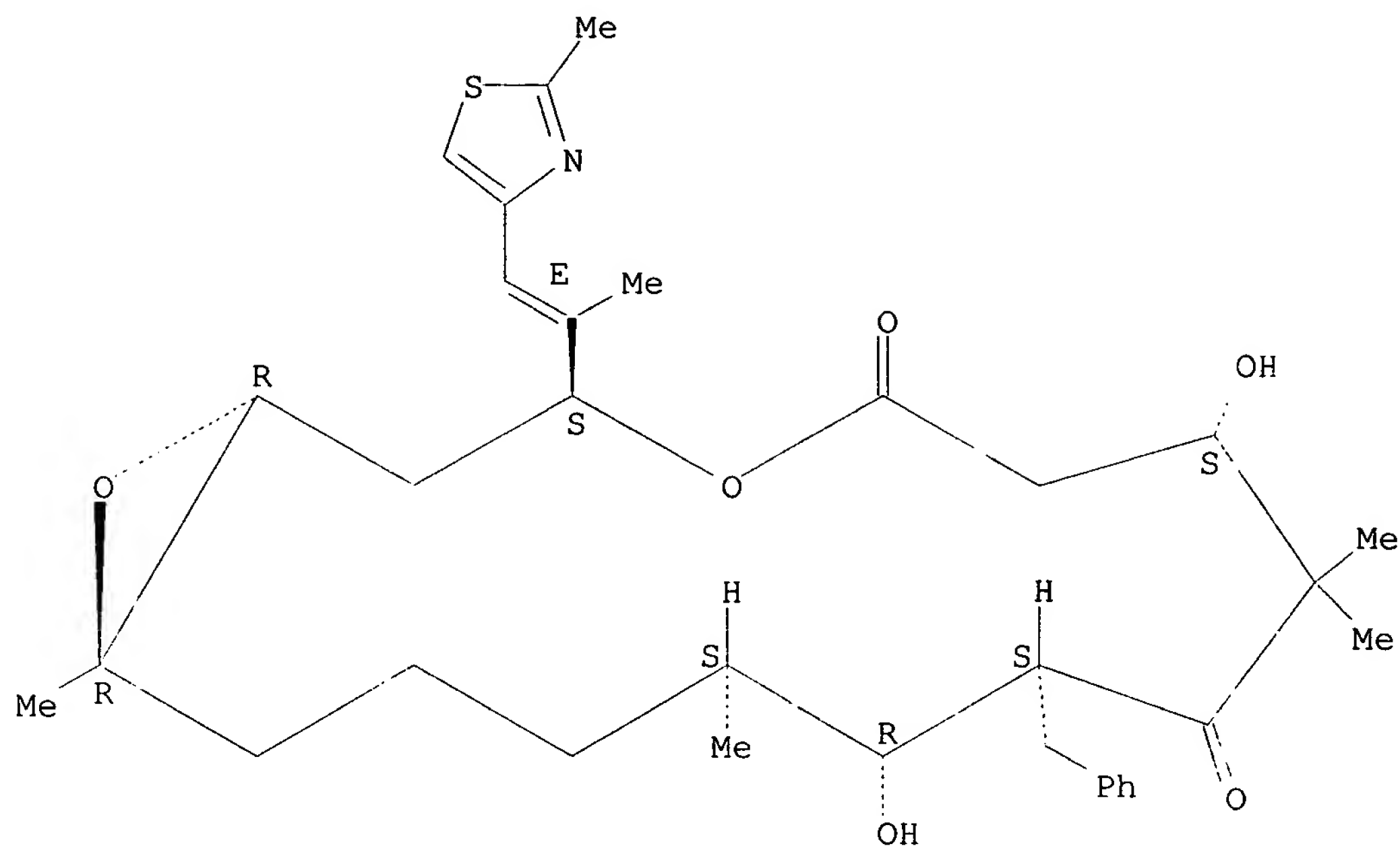
Absolute stereochemistry.
Double bond geometry as shown.



RN 220773-72-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-(phenylmethyl)-, (1R,3S,7S,10S,11R,12S,16R)- (9CI) (CA INDEX NAME)

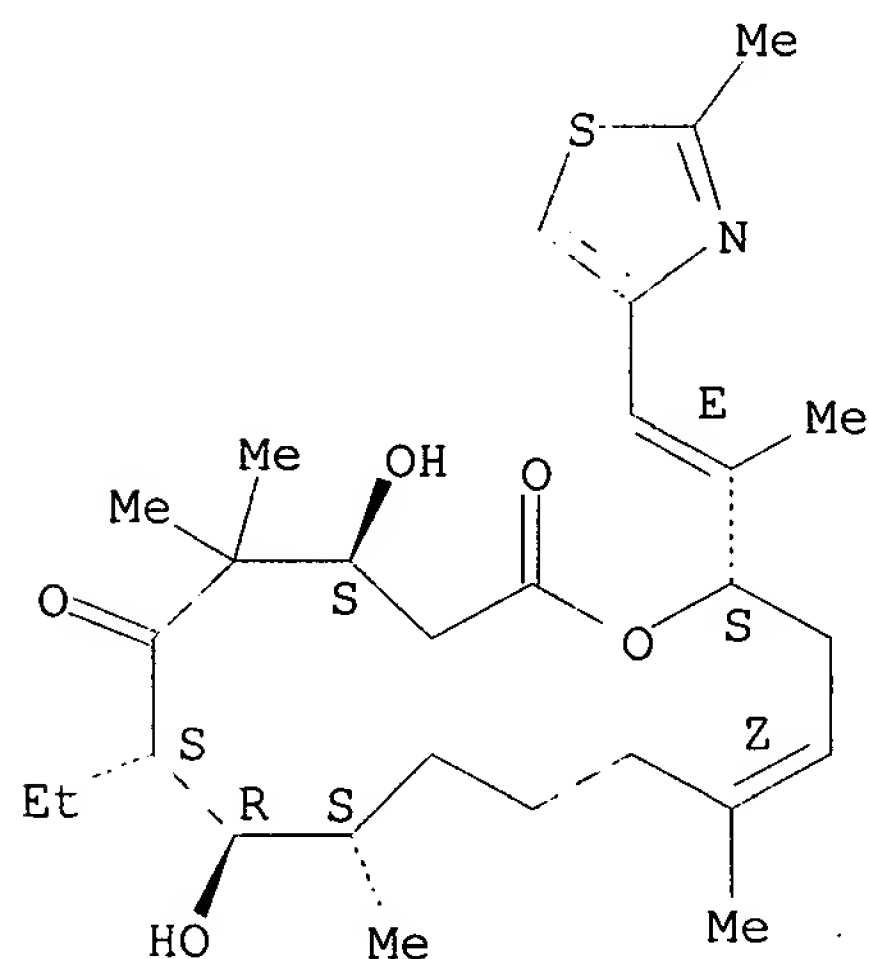
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-11-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 7-ethyl-4,8-dihydroxy-5,5,9,13-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9S,13Z,16S)- (9CI) (CA INDEX NAME)

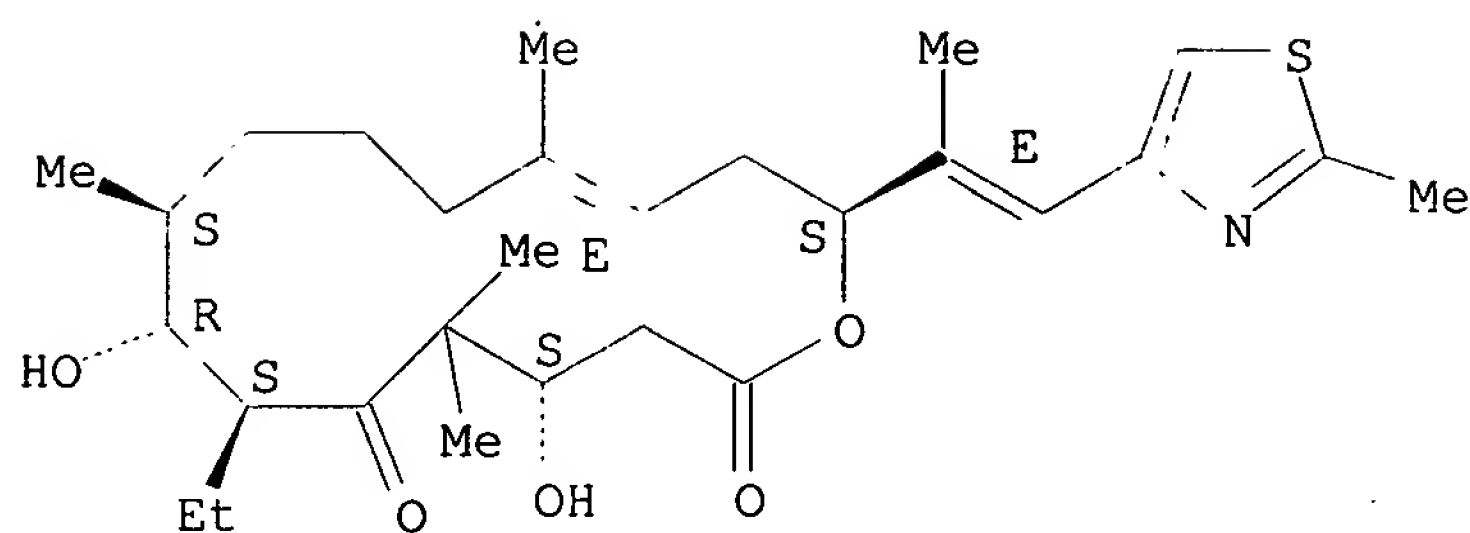
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-13-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 7-ethyl-4,8-dihydroxy-5,5,9,13-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

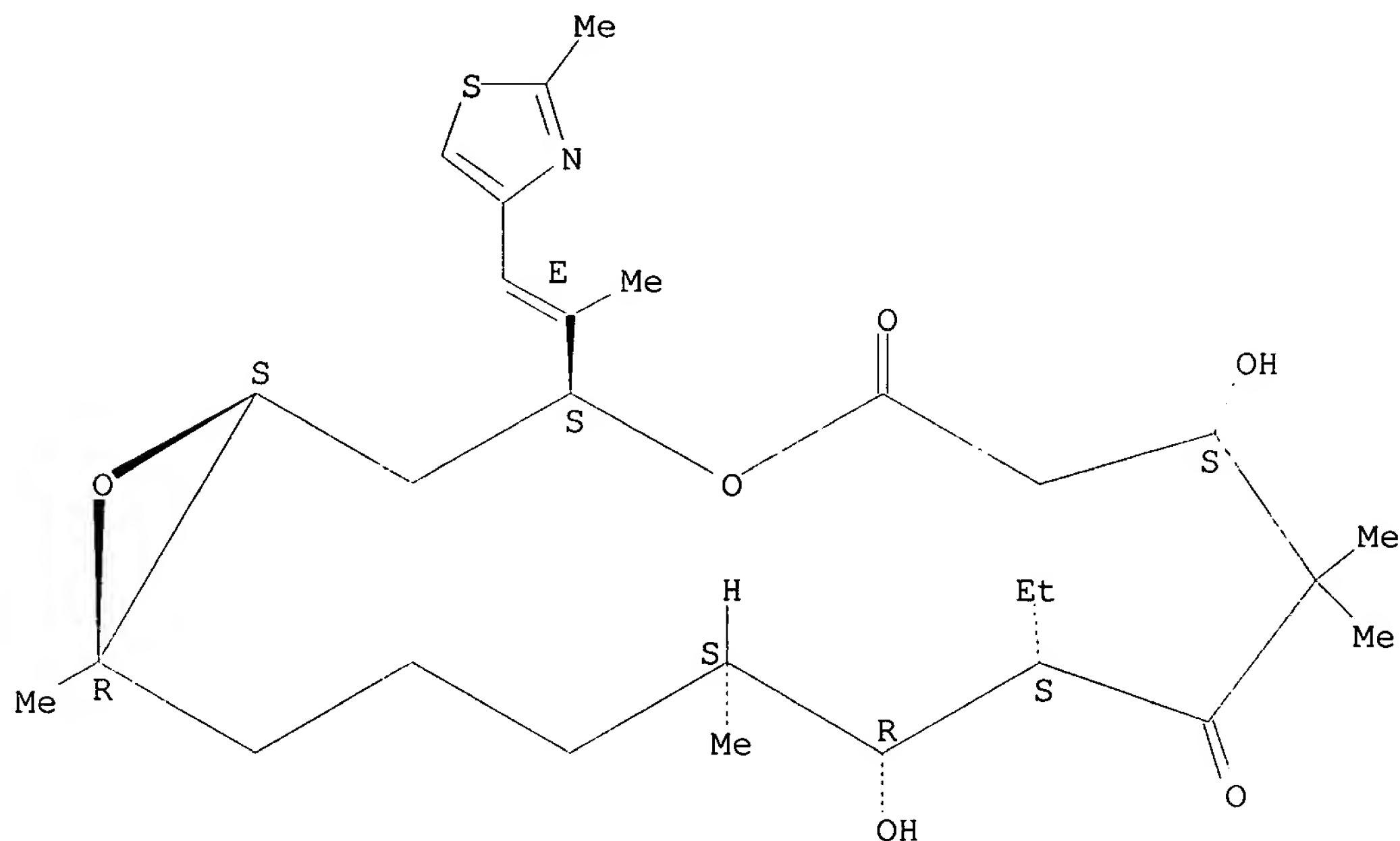


RN 220776-15-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 10-ethyl-7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10S,11R,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

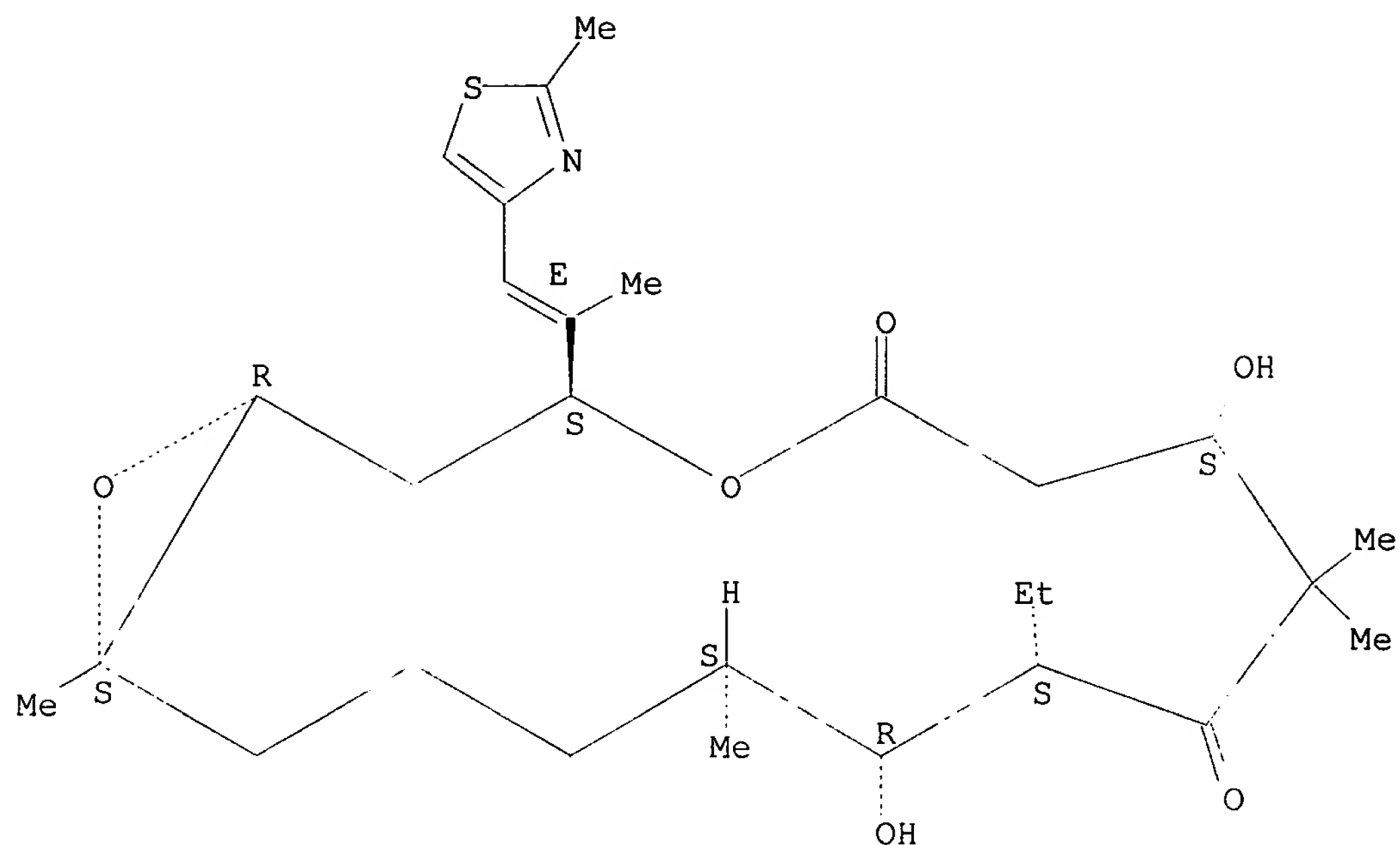


RN 220776-17-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 10-ethyl-7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10S,11R,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

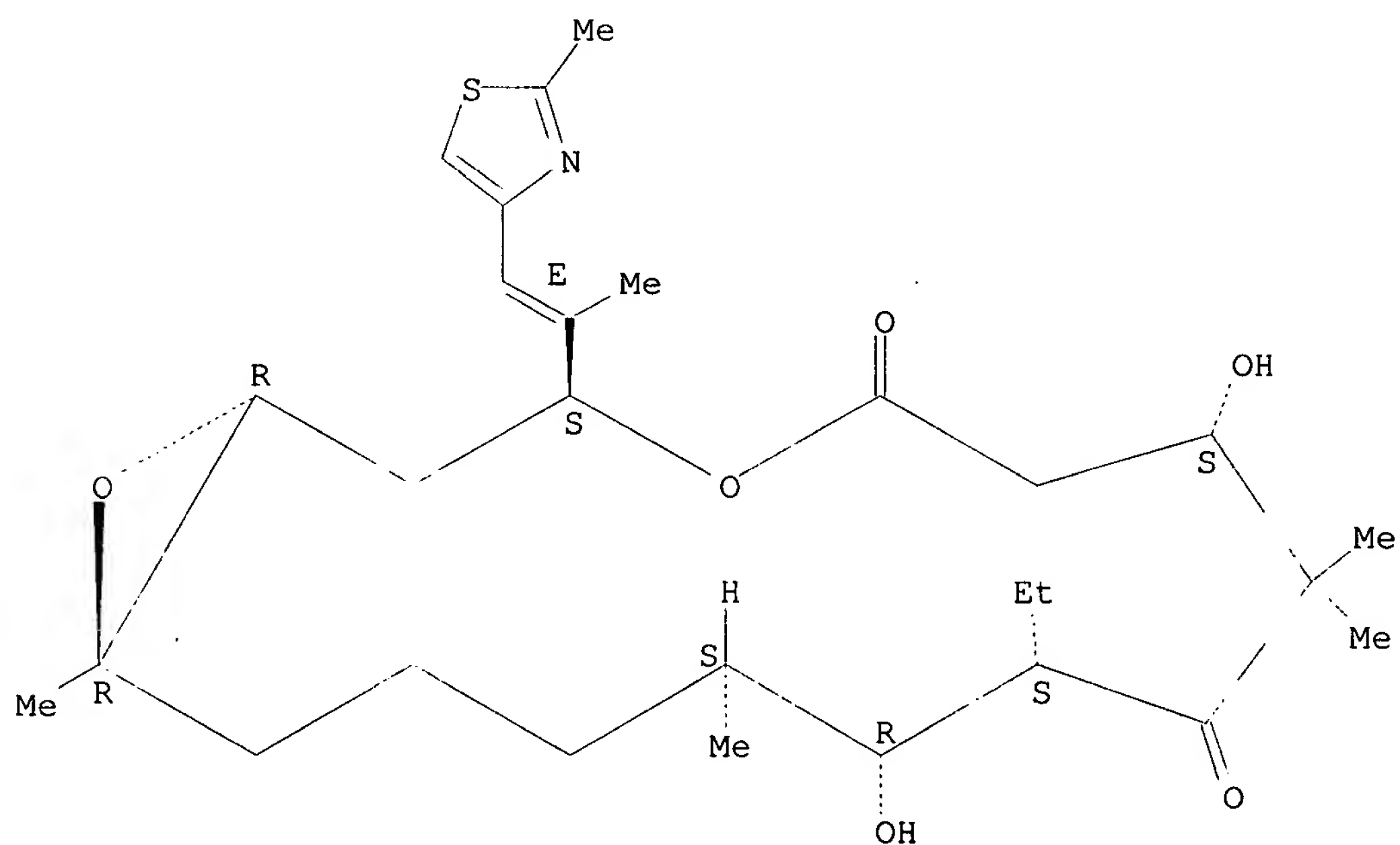
Double bond geometry as shown.



RN 220776-19-2 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 10-ethyl-7,11-dihydroxy-
8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1R,3S,7S,10S,11R,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

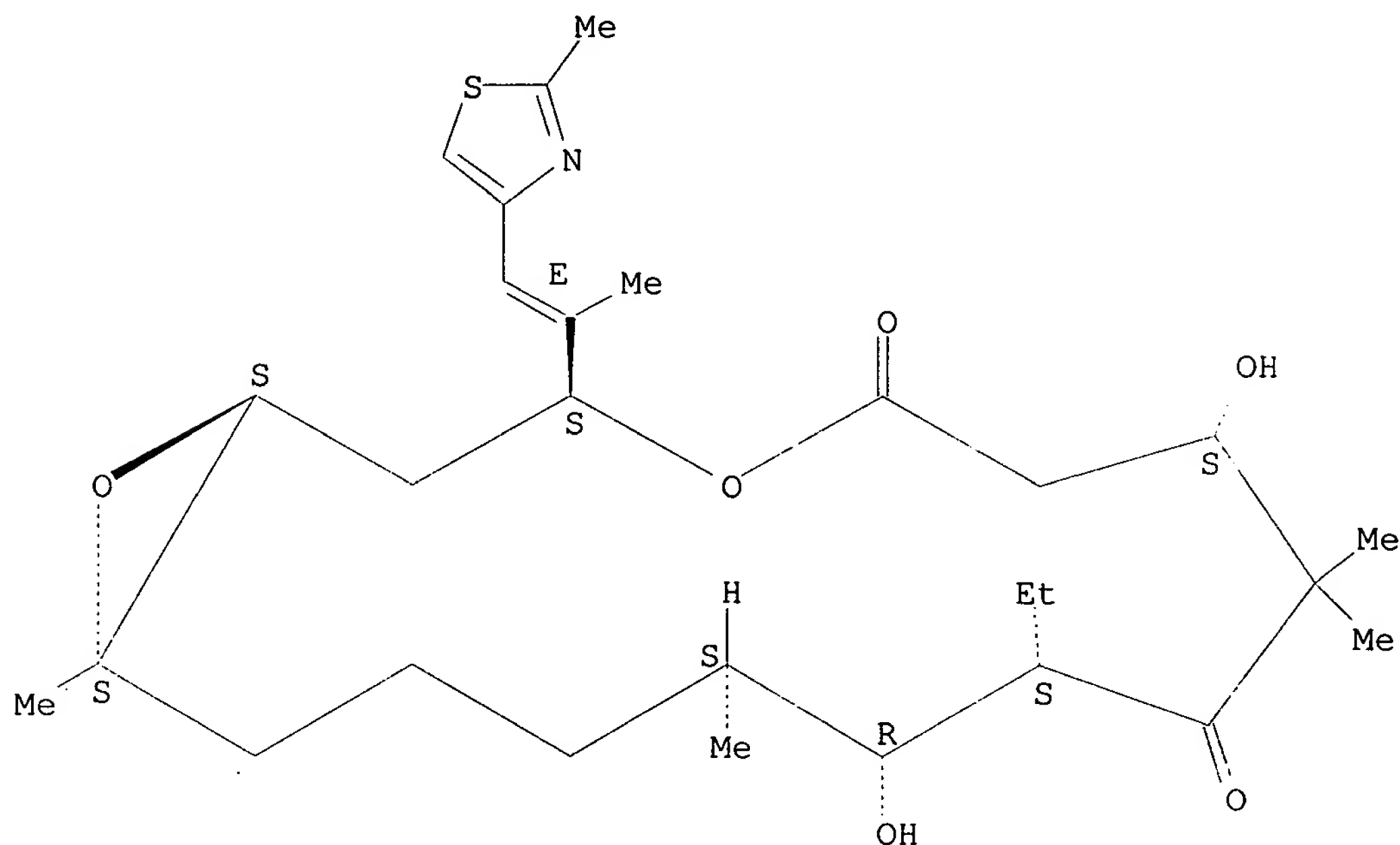


RN 220776-20-5 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 10-ethyl-7,11-dihydroxy-

8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10S,11R,12S,16S)- (9CI) (CA INDEX NAME)

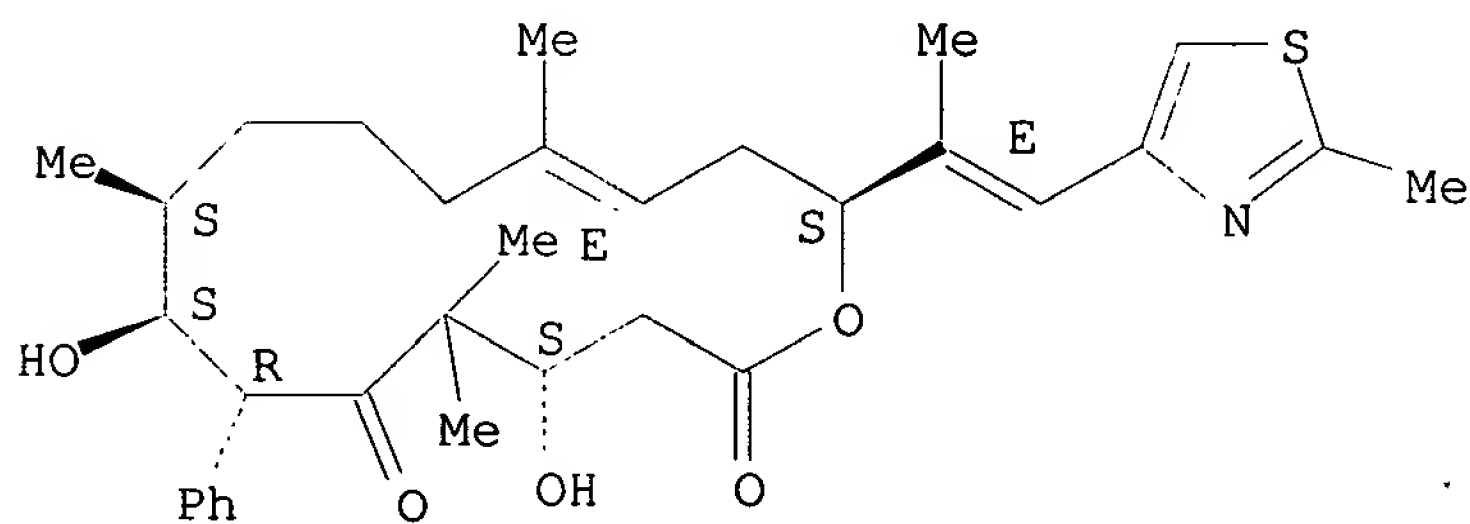
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-21-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,9,13-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-7-phenyl-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

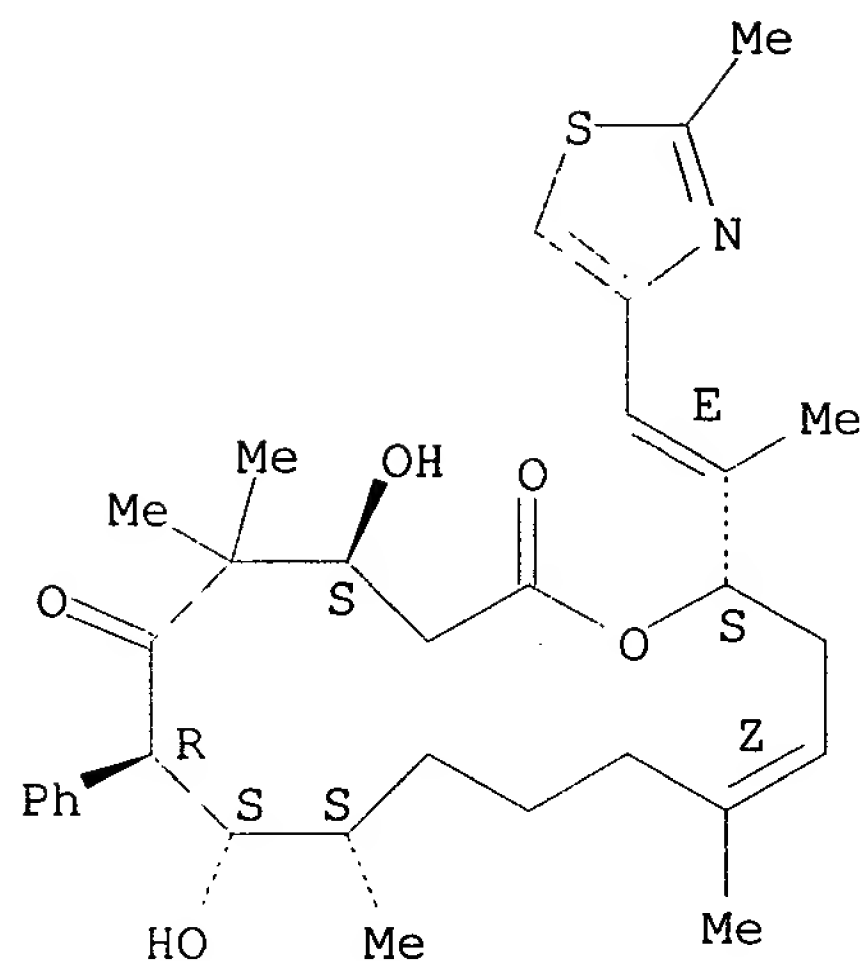
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-22-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,9,13-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-7-phenyl-,
(4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

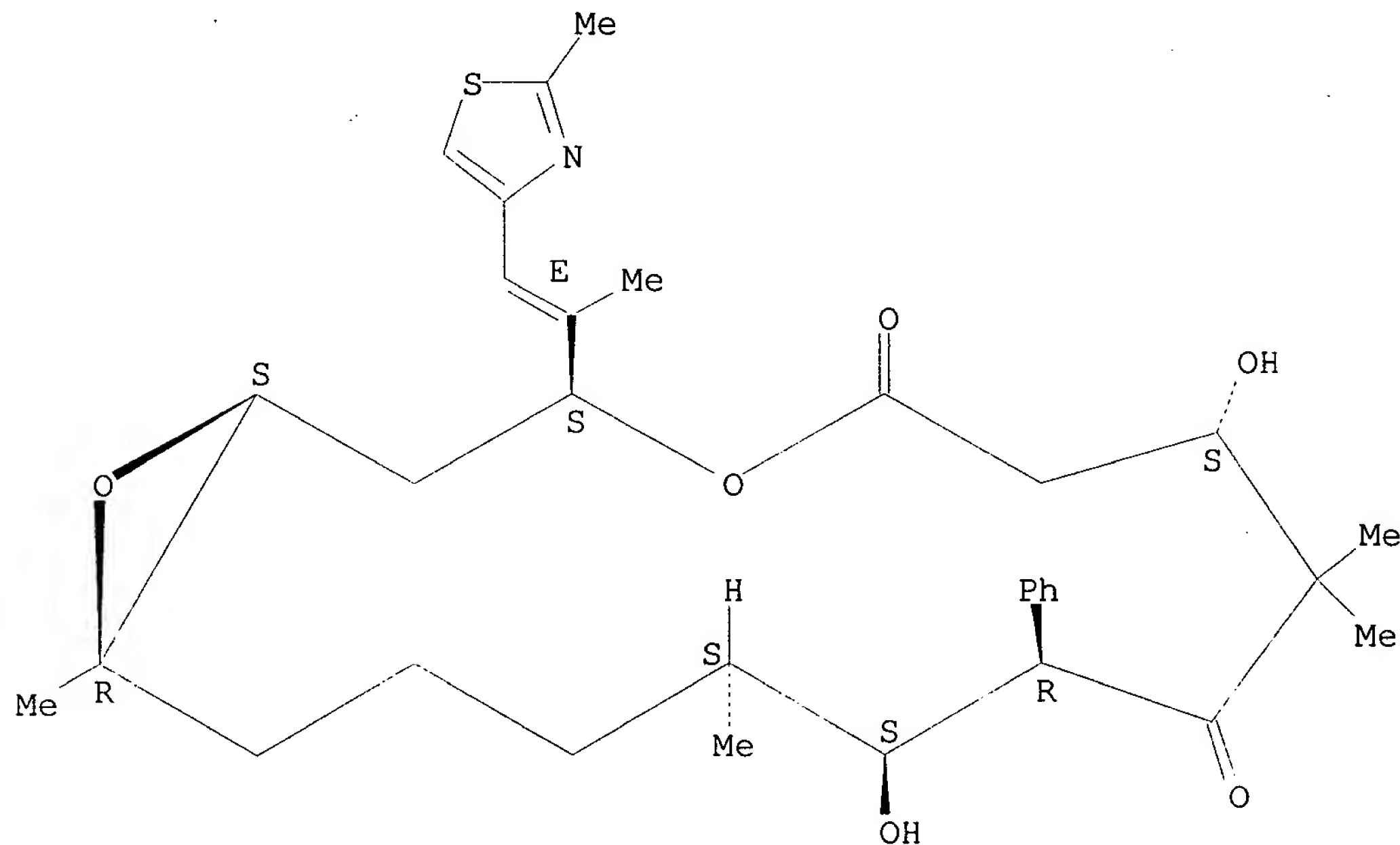


RN 220776-23-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-phenyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

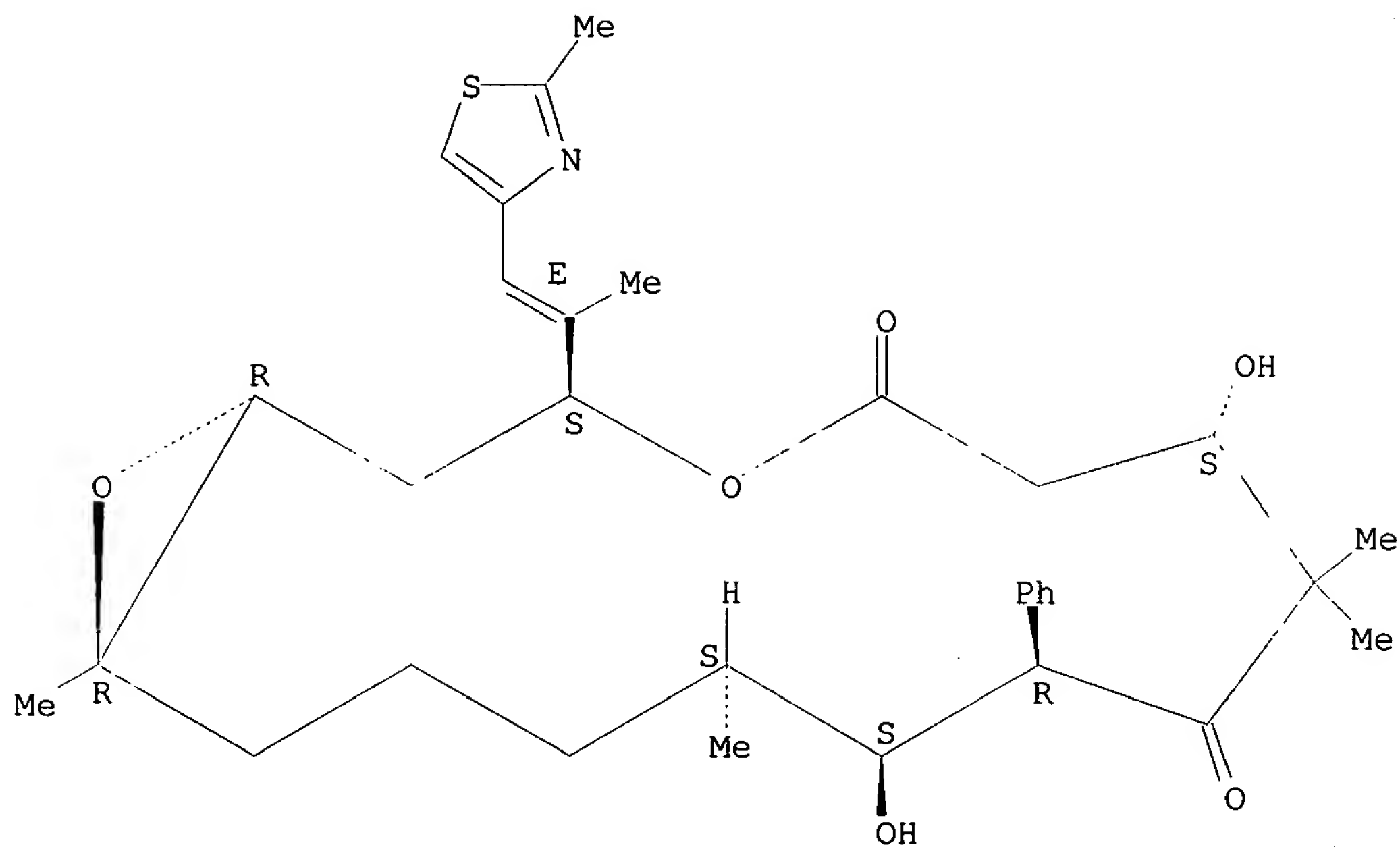


RN 220776-24-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-phenyl-, (1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

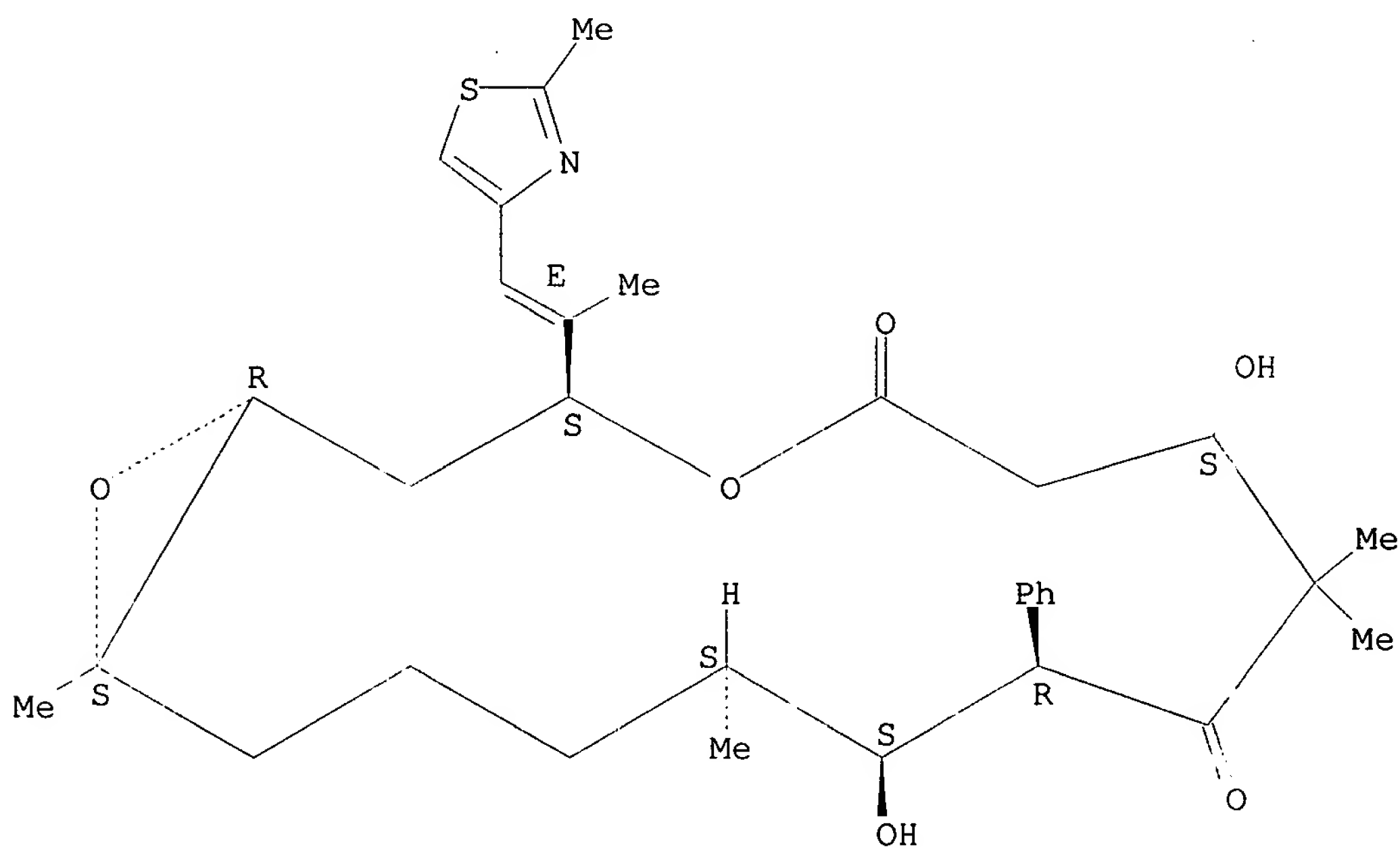
Double bond geometry as shown.



RN 220776-25-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,12,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-phenyl-, (1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

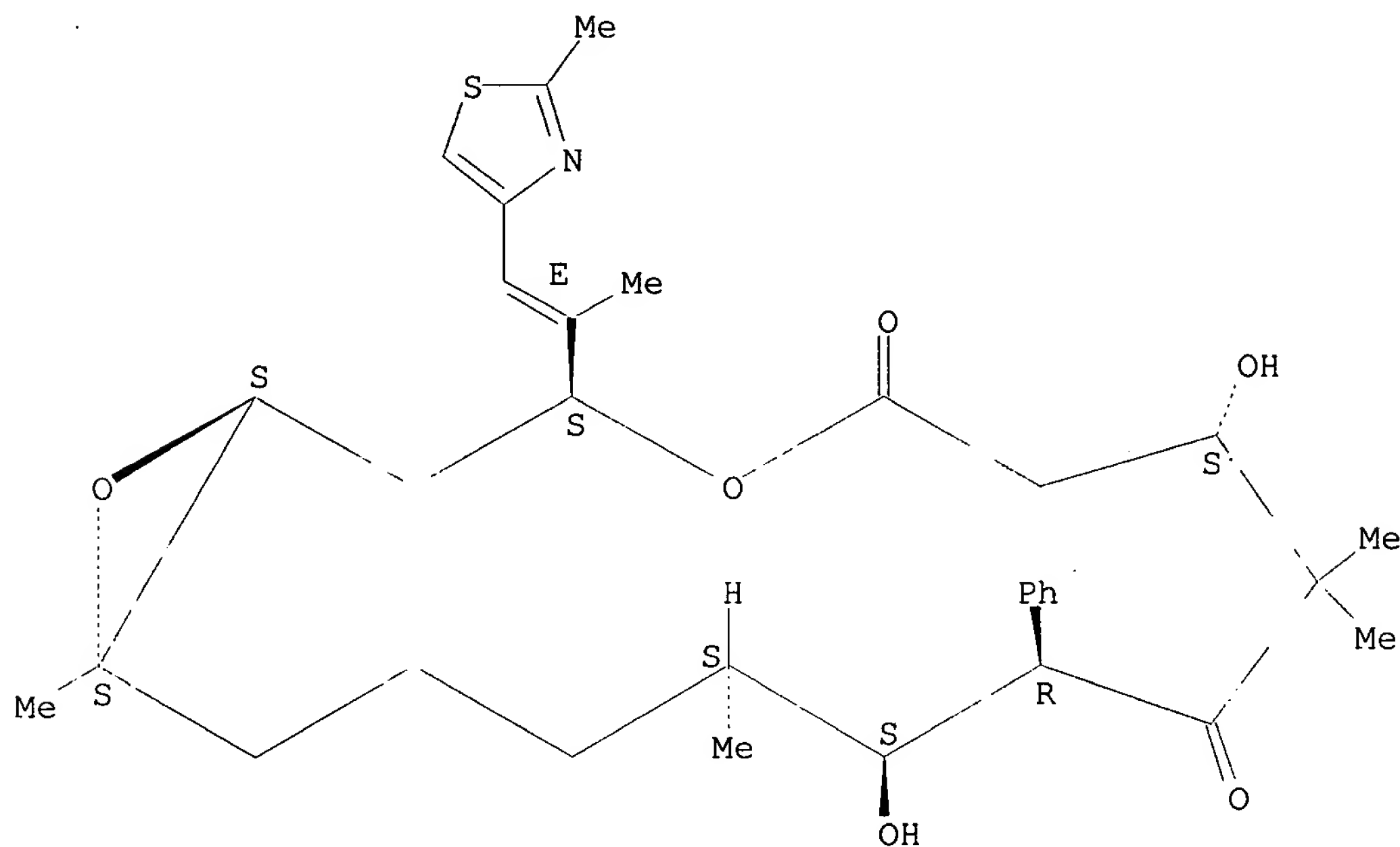


RN 220776-26-1 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,12,16-

tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-10-phenyl-,
(1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

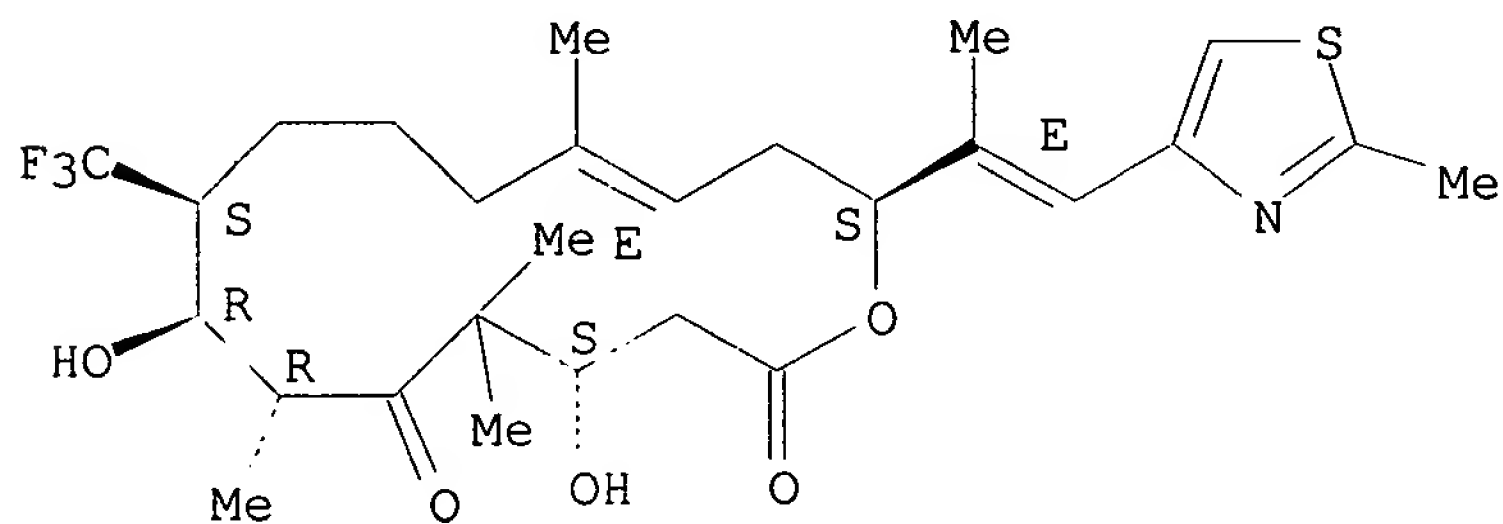
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-27-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,13-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-9-(trifluoromethyl)-,
(4S,7R,8R,9S,13E,16S)- (9CI) (CA INDEX NAME)

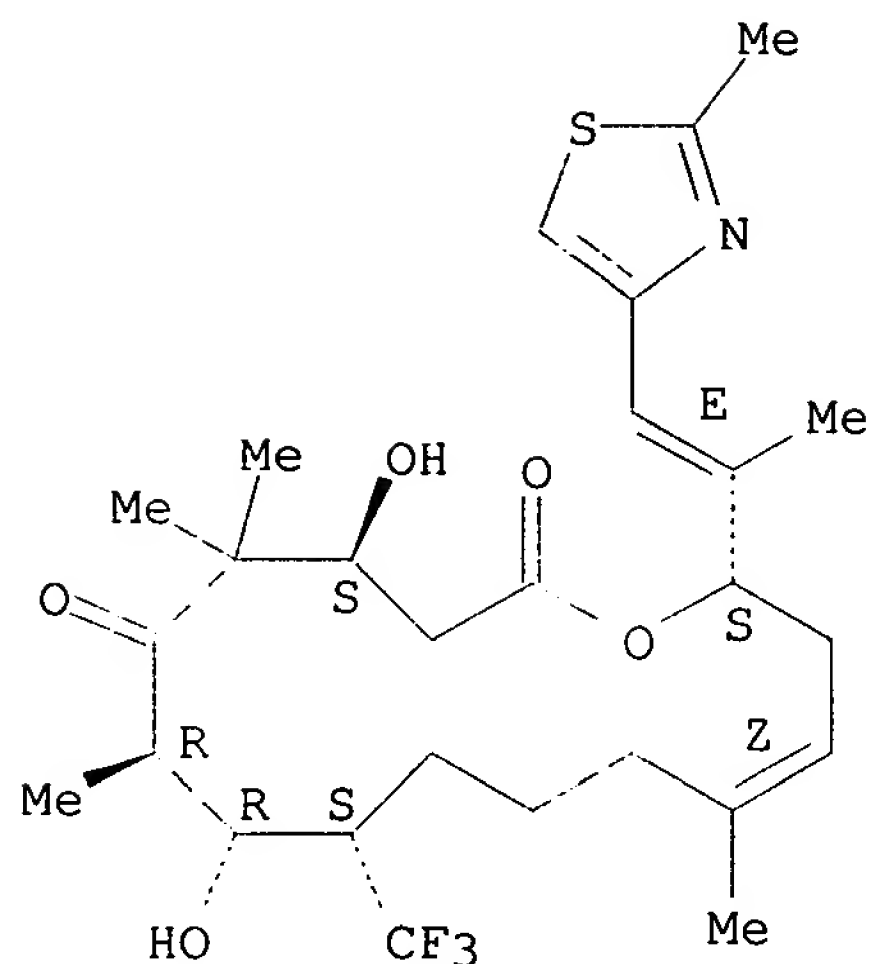
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-28-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,13-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-9-(trifluoromethyl)-,
(4S,7R,8R,9S,13Z,16S)- (9CI) (CA INDEX NAME)

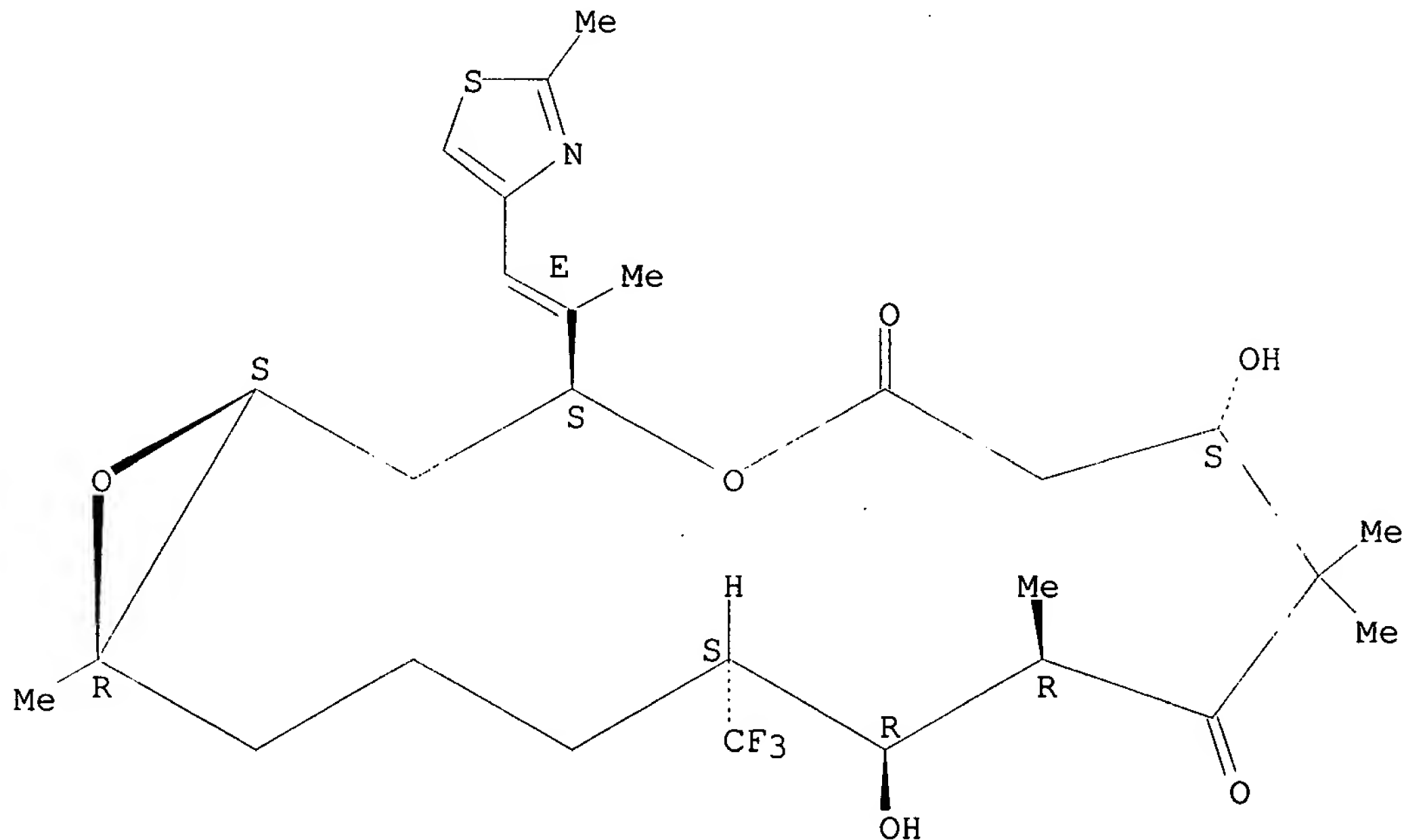
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-29-4 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12-(trifluoromethyl)-, (1S,3S,7S,10R,11R,12S,16R)- (9CI) (CA INDEX NAME)

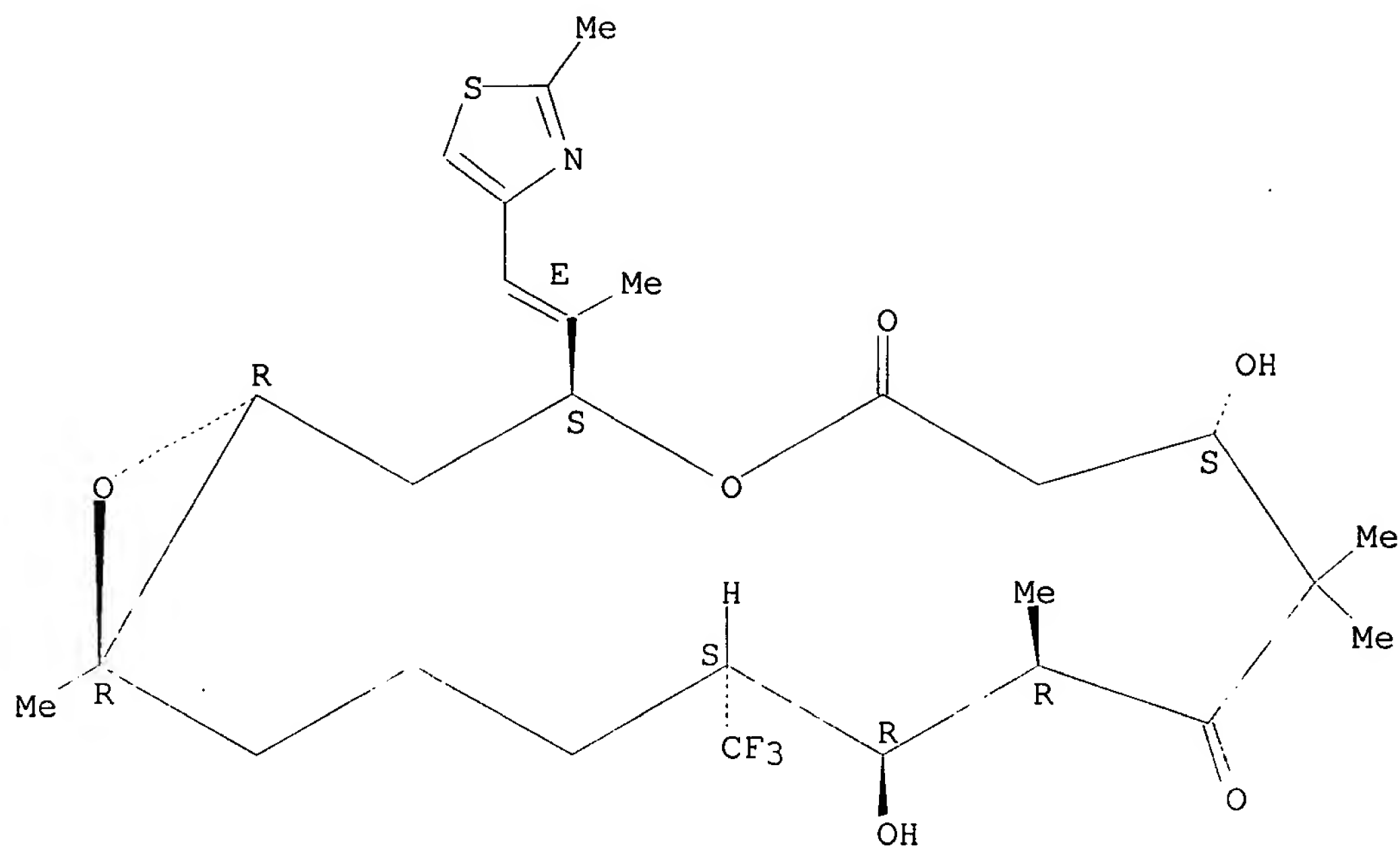
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-30-7 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12-(trifluoromethyl)-, (1R,3S,7S,10R,11R,12S,16R)- (9CI) (CA INDEX NAME)

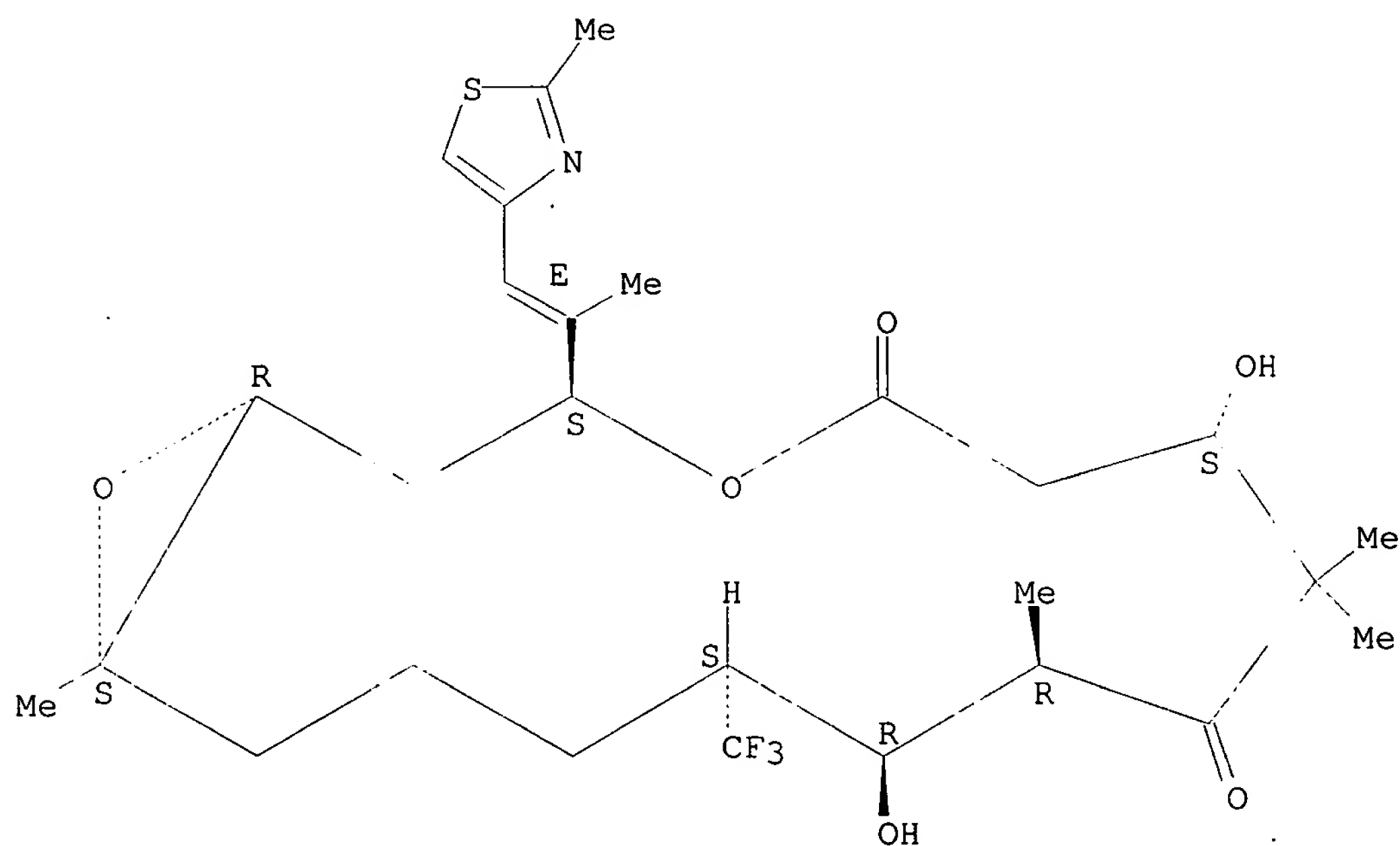
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-31-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,16-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12-(trifluoromethyl)-, (1R,3S,7S,10R,11R,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

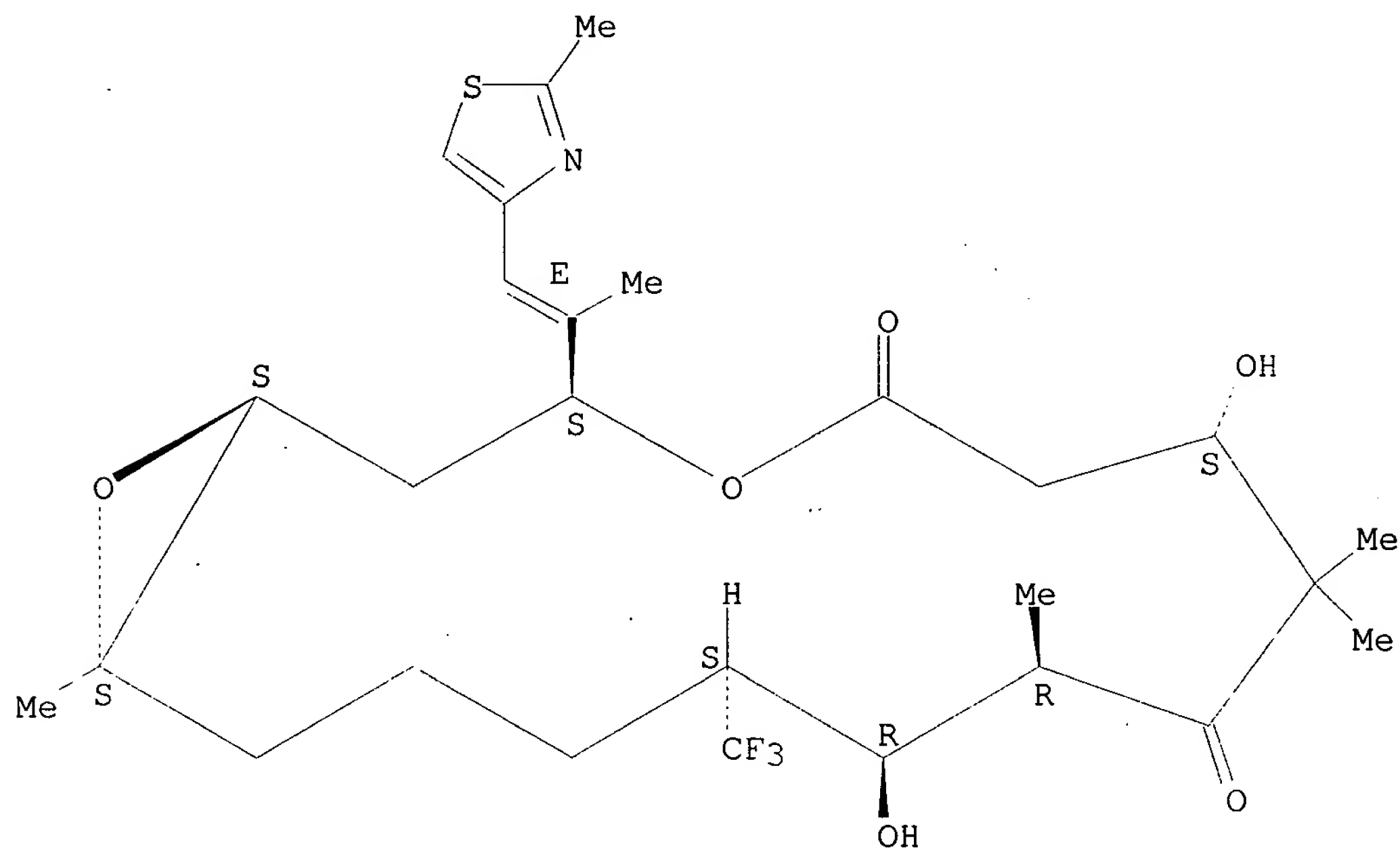


RN 220776-32-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,16-

tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12-(trifluoromethyl)-, (1S,3S,7S,10R,11R,12S,16S)- (9CI) (CA INDEX NAME)

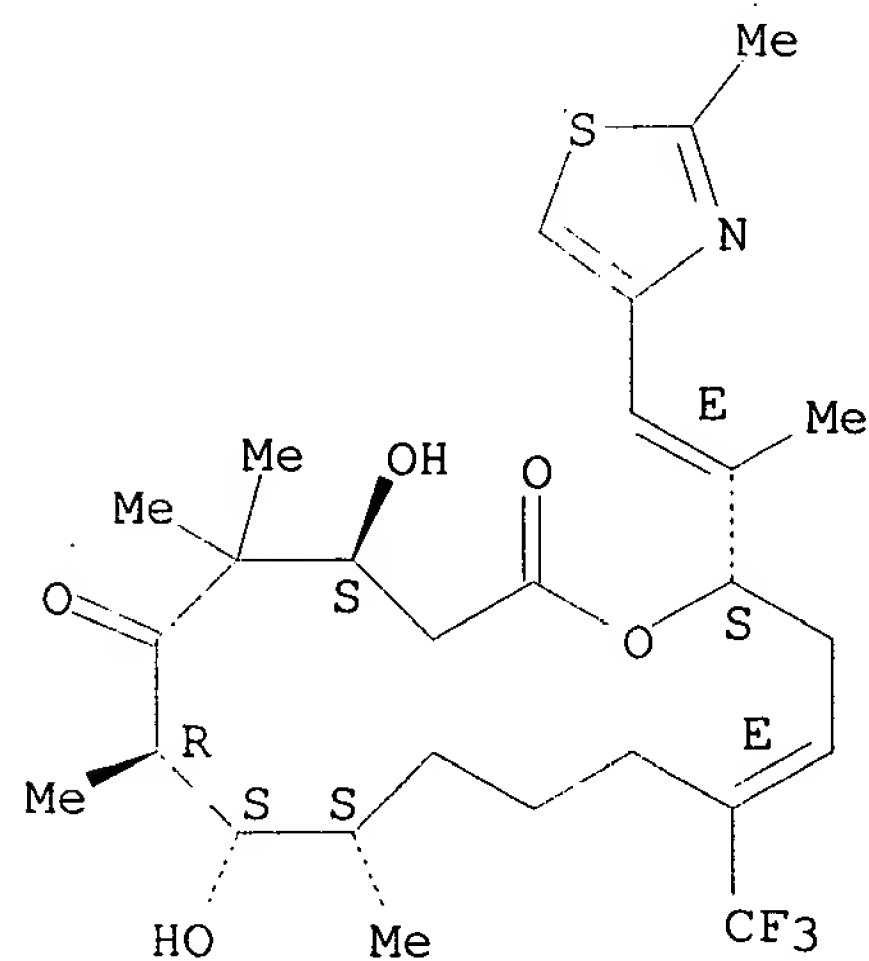
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-42-1 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-(trifluoromethyl)-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

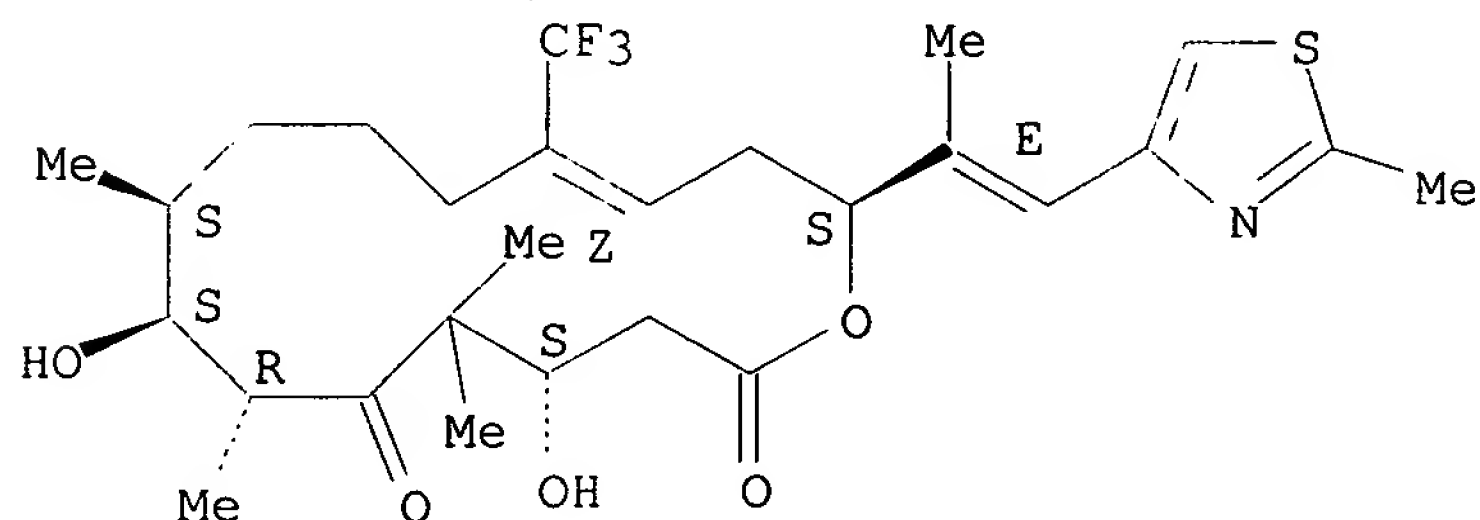


RN 220776-43-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-

[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-(trifluoromethyl)-,
(4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

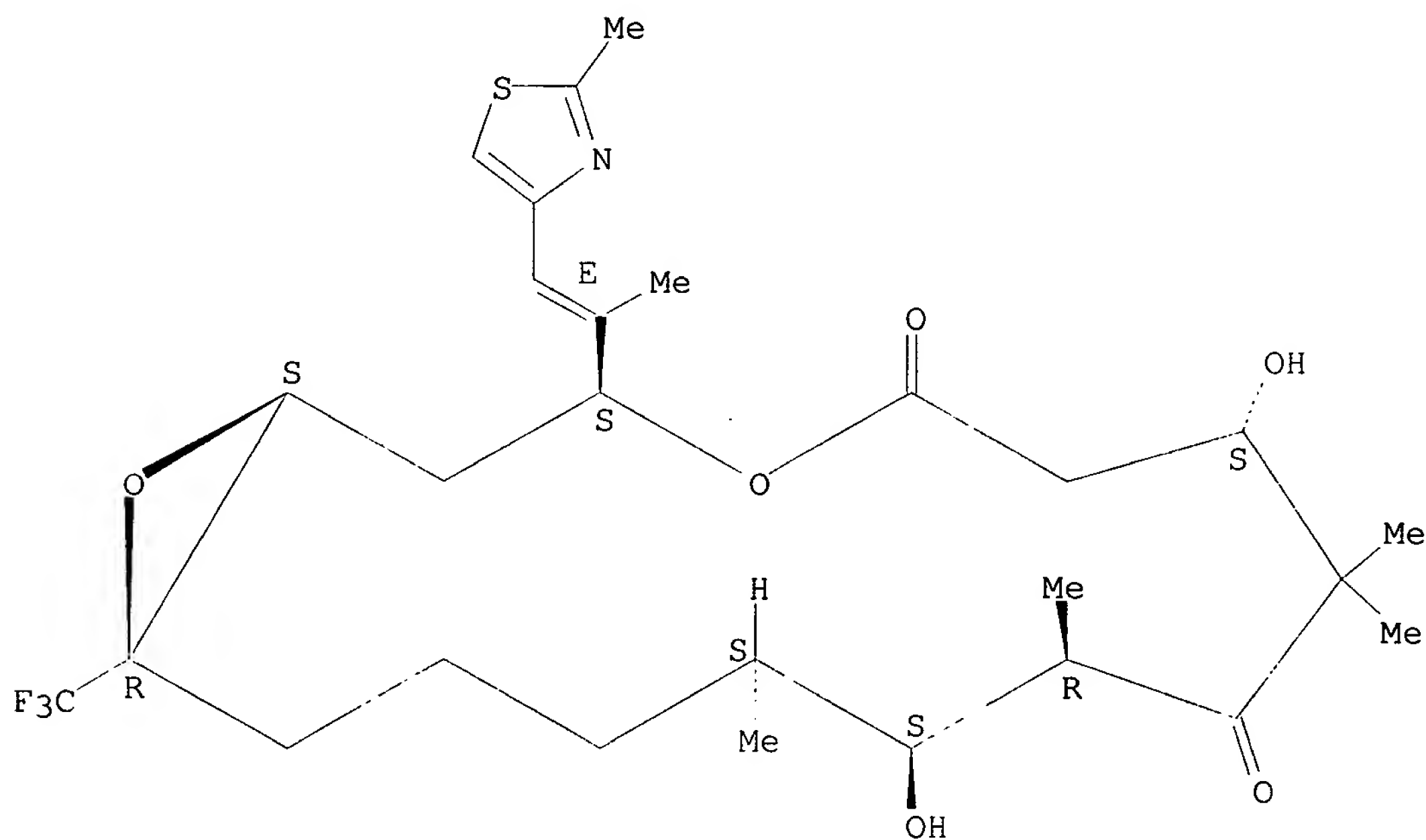
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-44-3 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-(trifluoromethyl)-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

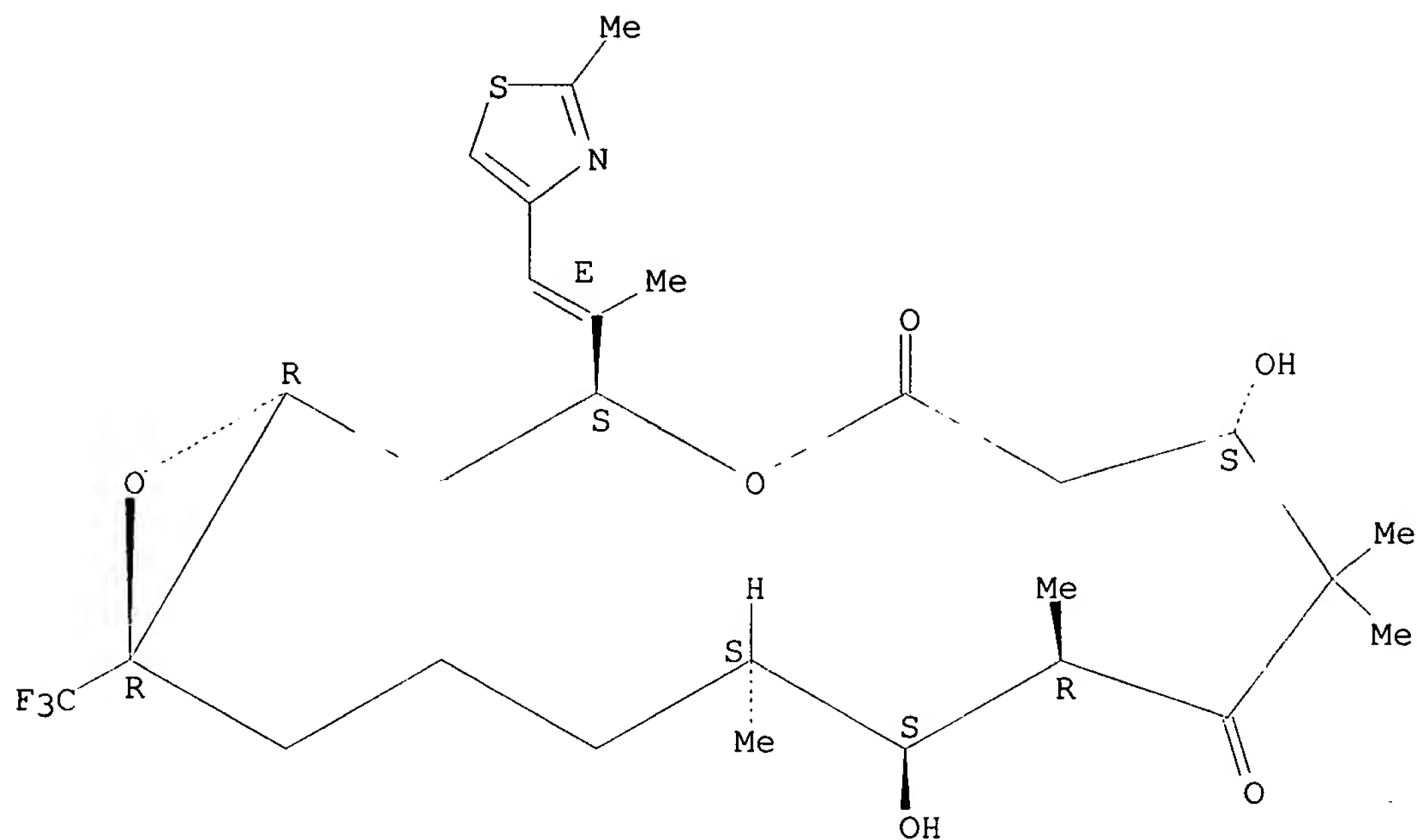
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-45-4 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-(trifluoromethyl)-, (1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

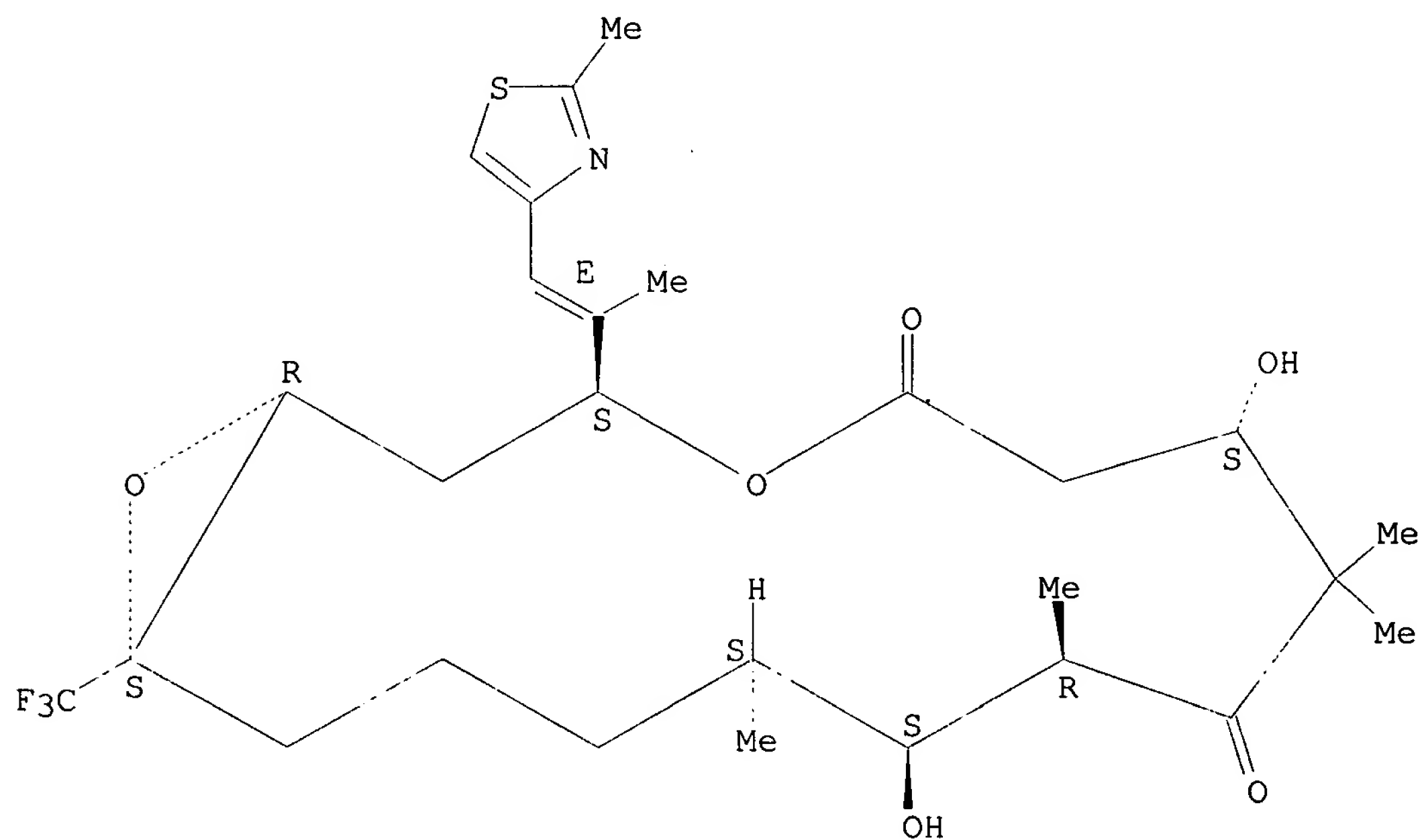
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-46-5 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-(trifluoromethyl)-, (1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

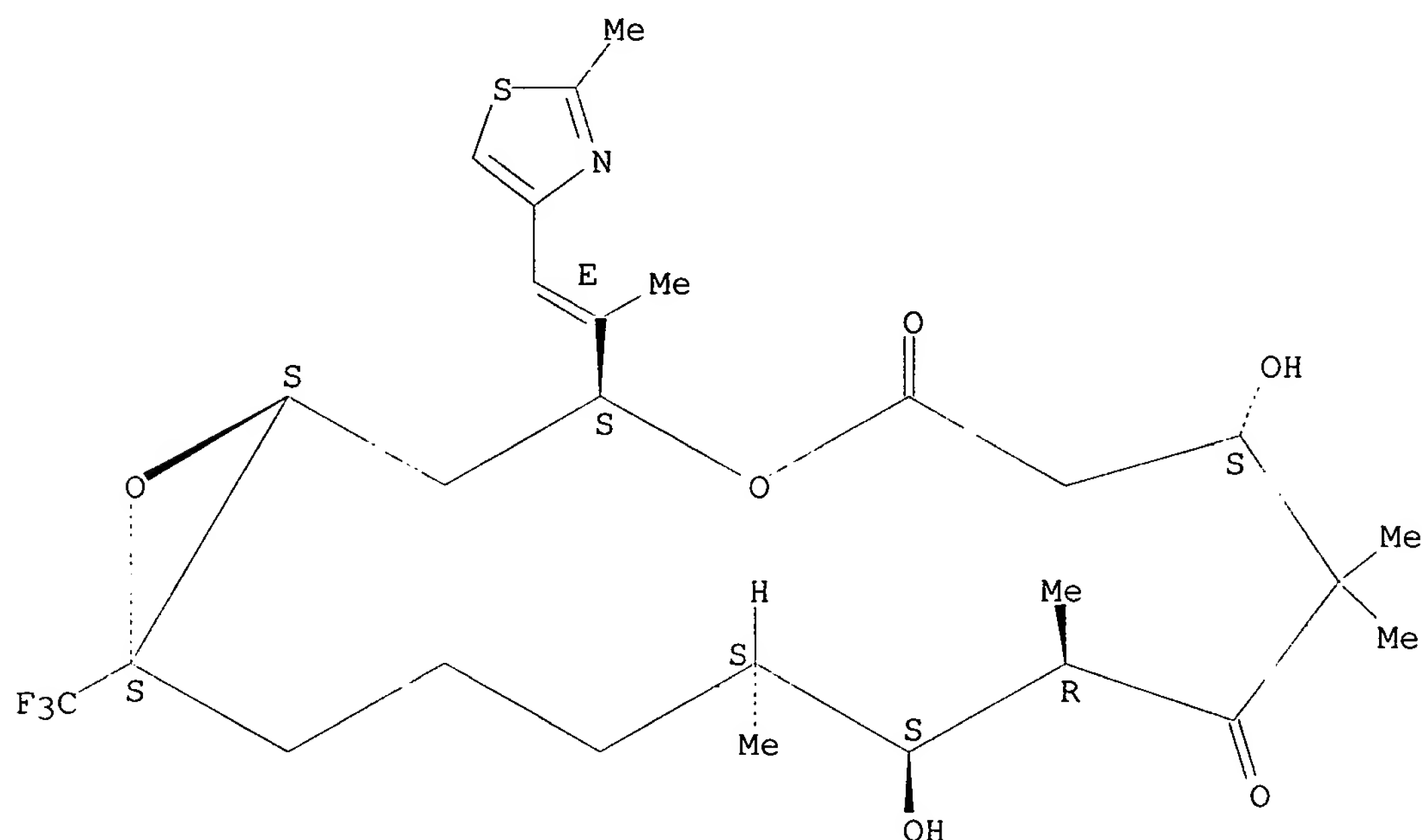


RN 220776-47-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-

tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-(trifluoromethyl)-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

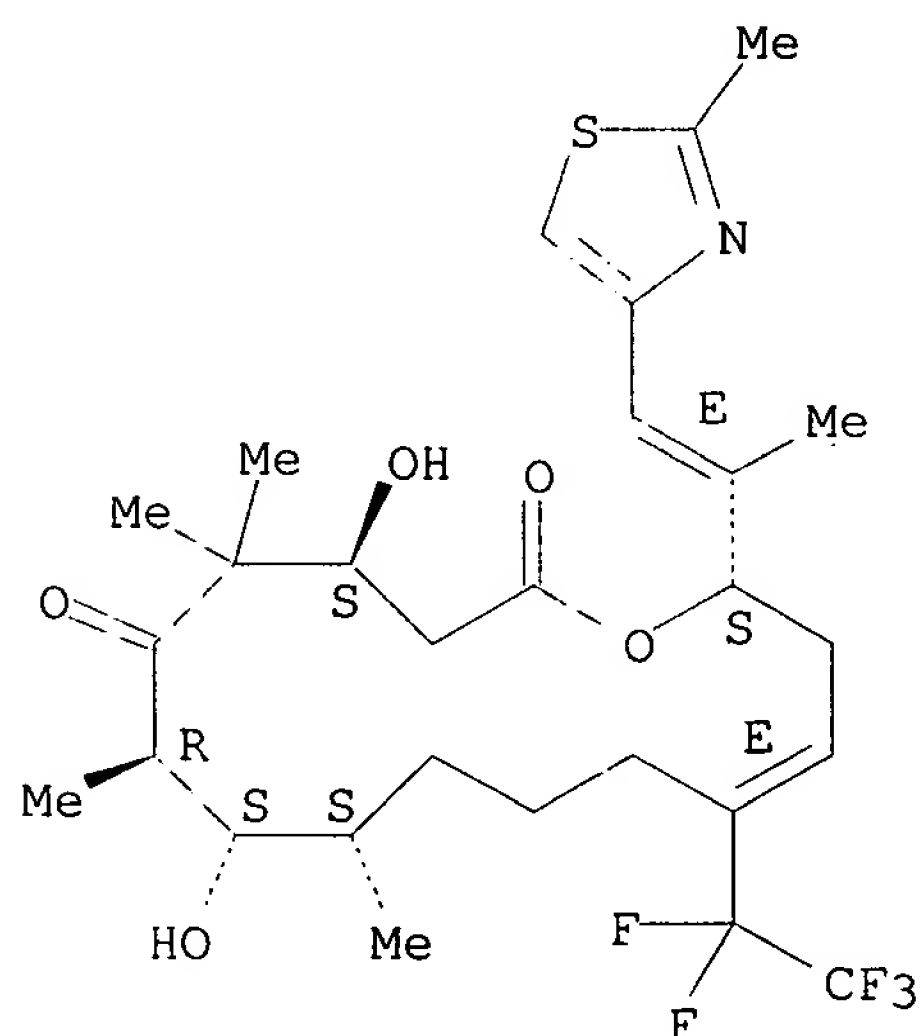
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-48-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-(pentafluoroethyl)-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

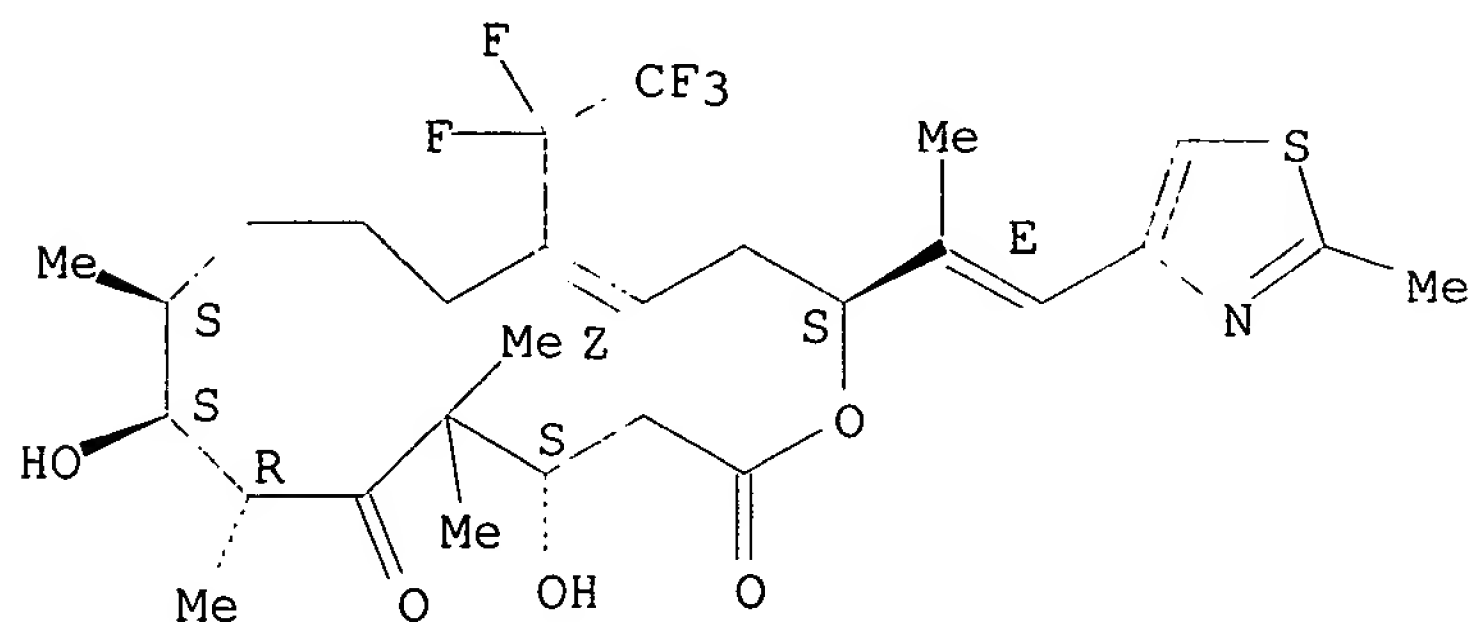
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-49-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-(pentafluoroethyl)-,
(4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

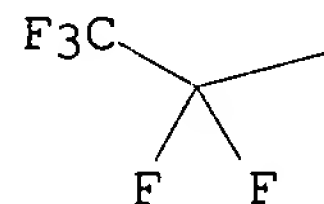


RN 220776-50-1 CAPLUS

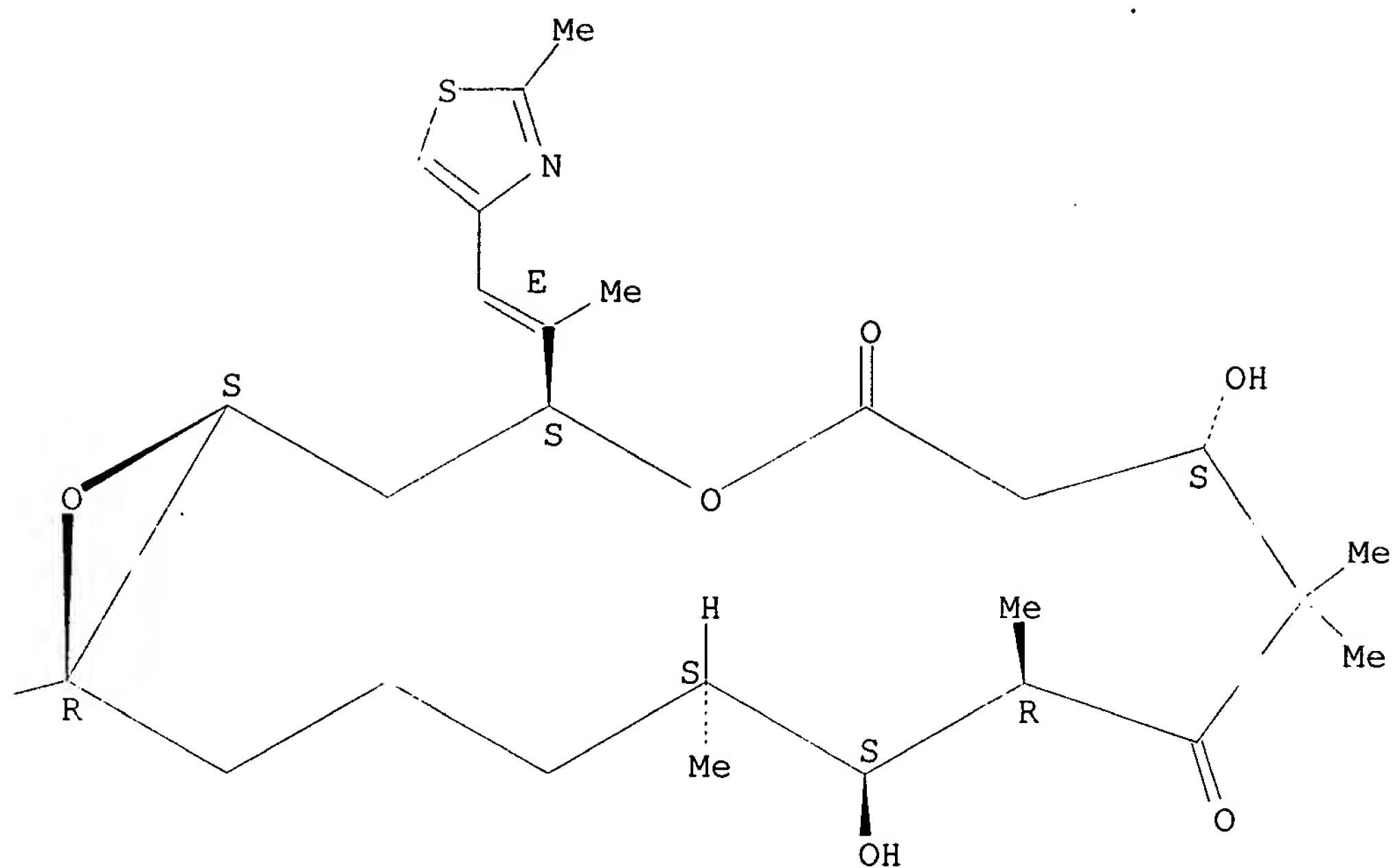
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-
tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-
(pentafluoroethyl)-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

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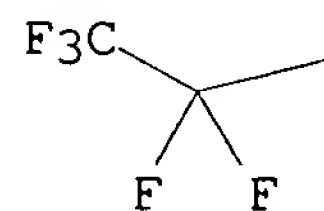
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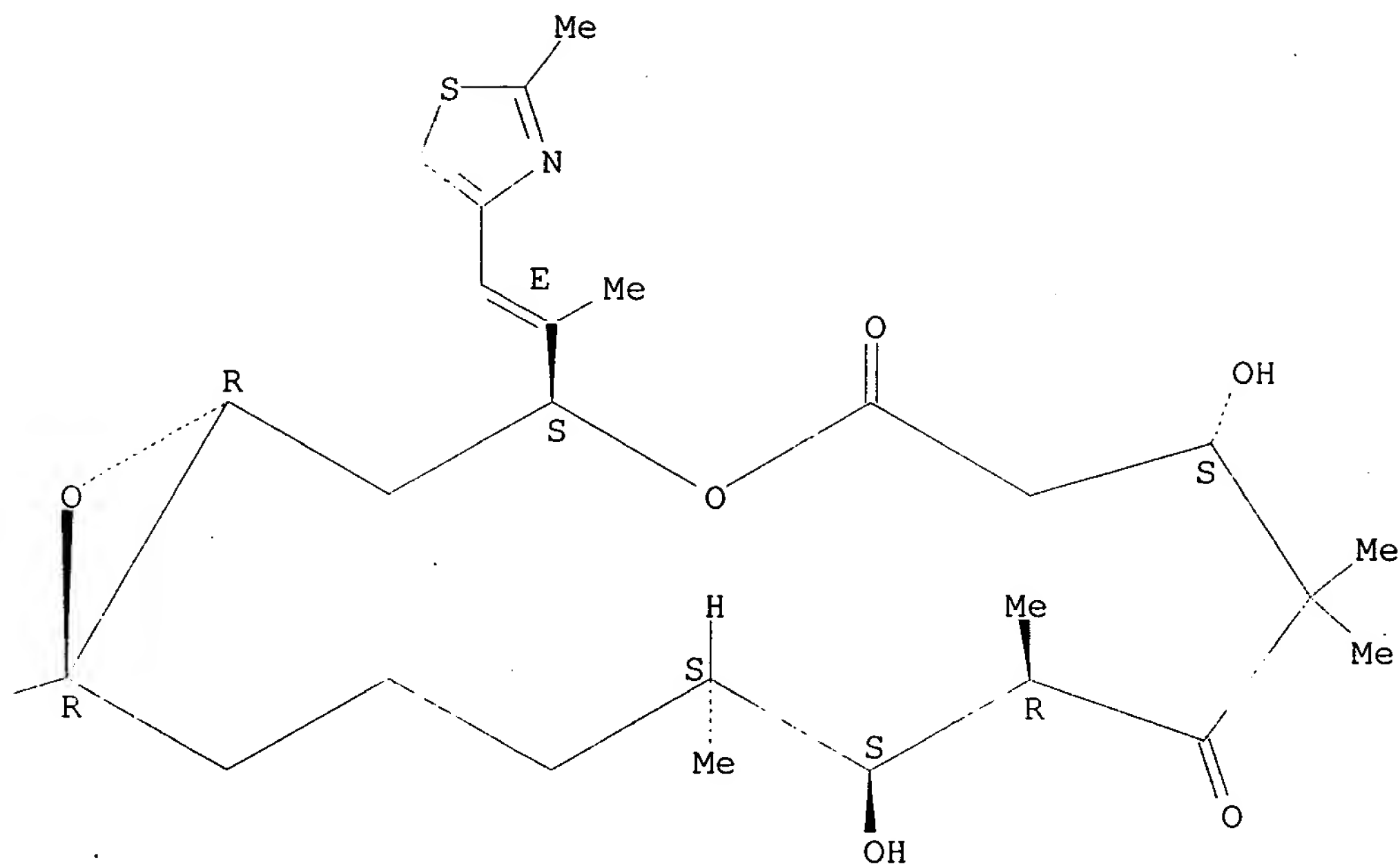
RN 220776-51-2 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-(pentafluoroethyl)-, (1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

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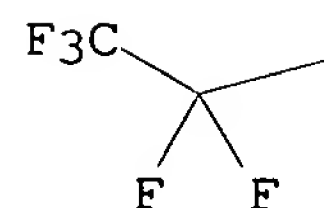


RN 220776-52-3 CAPLUS

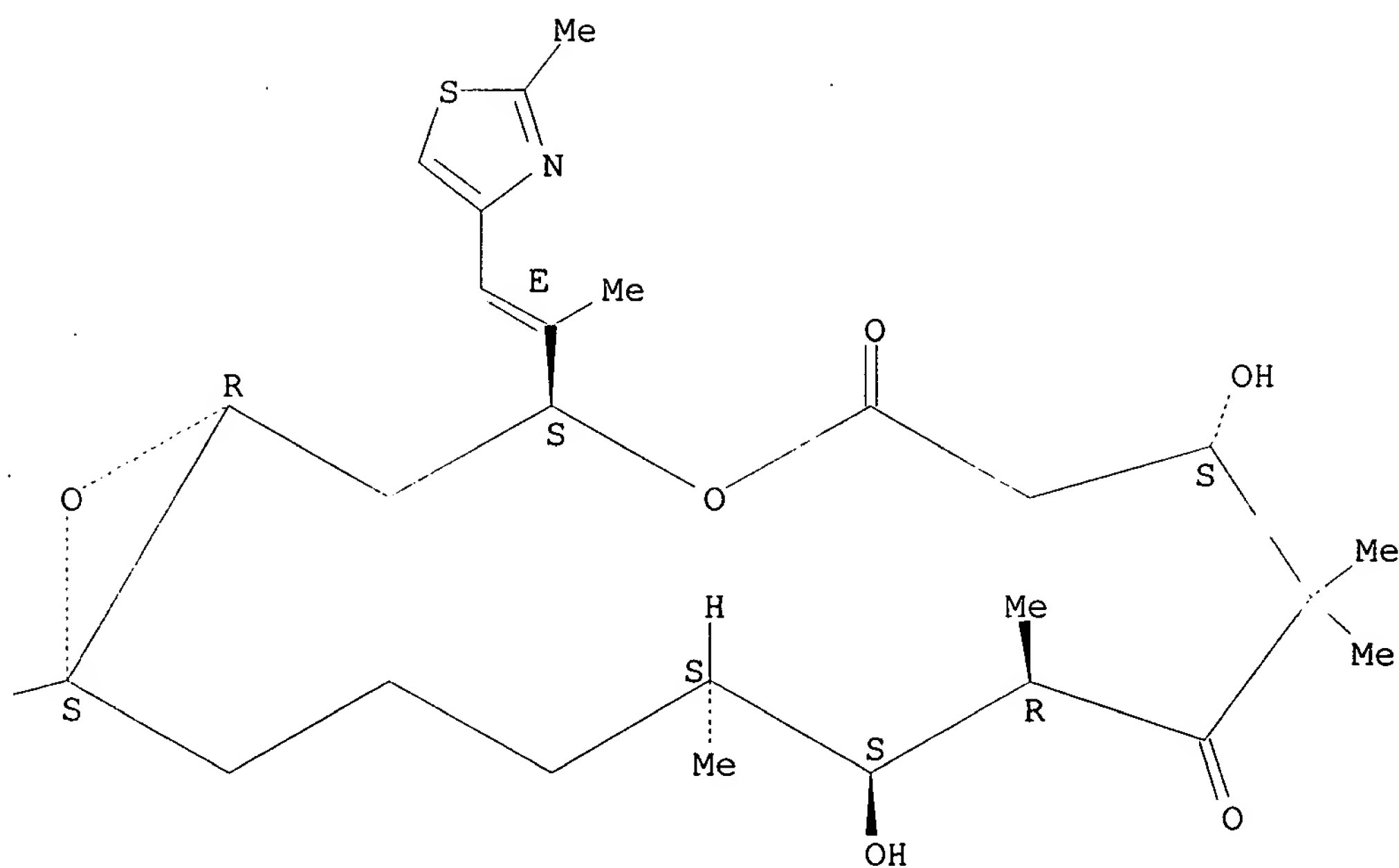
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-(pentafluoroethyl)-, (1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

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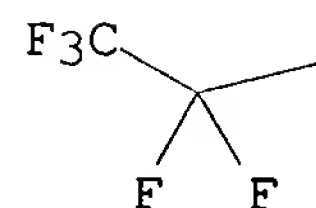
PAGE 1-B



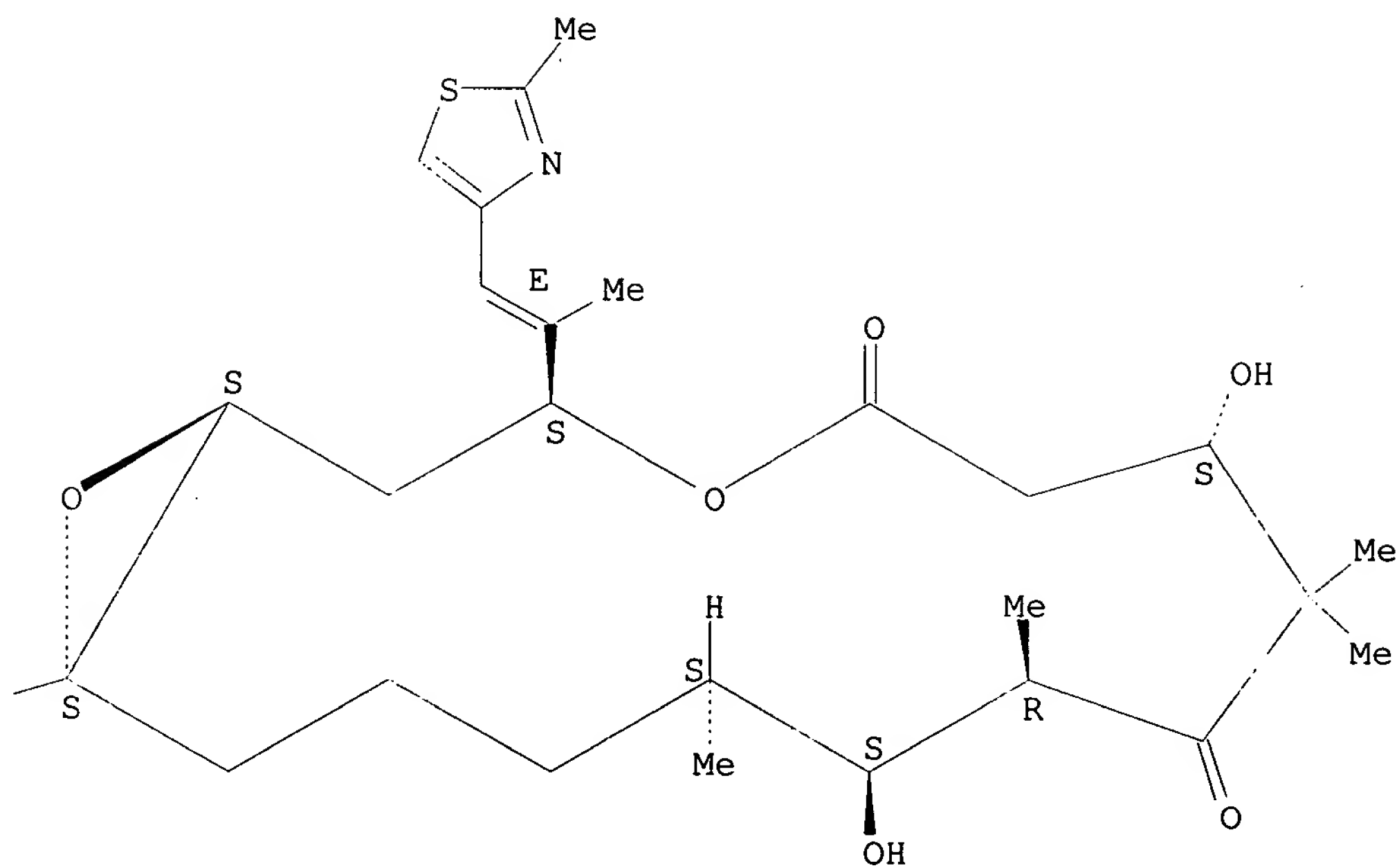
RN 220776-53-4 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-(pentafluoroethyl)-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

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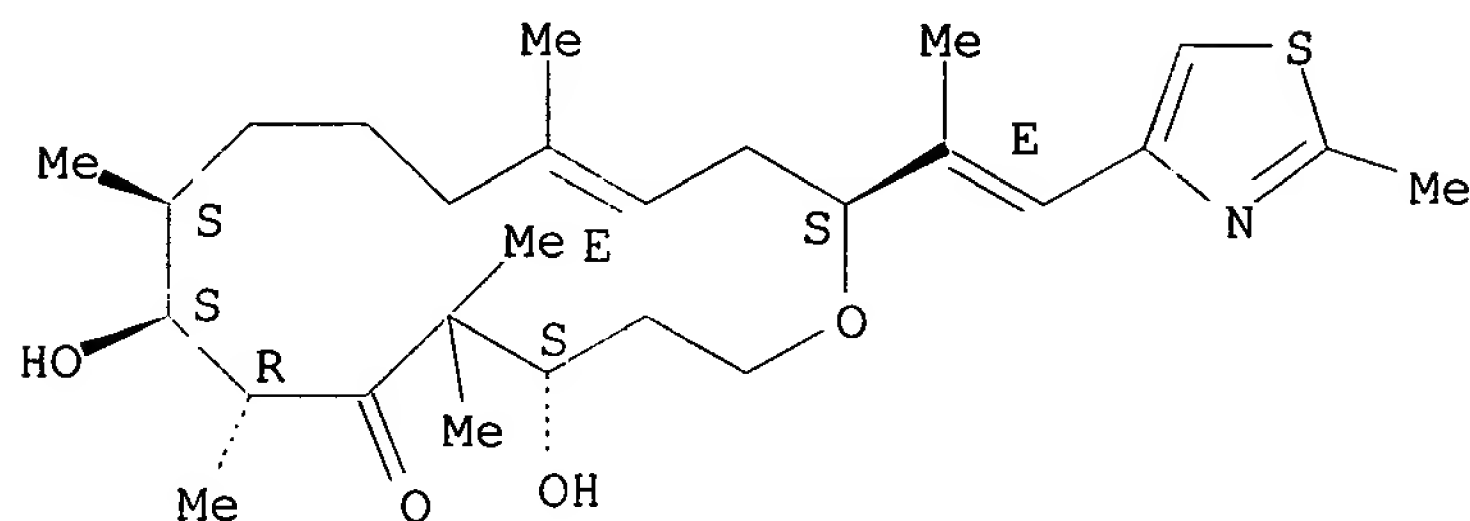
PAGE 1-B



RN 220776-60-3 CAPLUS
CN Oxacyclohexadec-13-en-6-one,
4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-[(1E)-

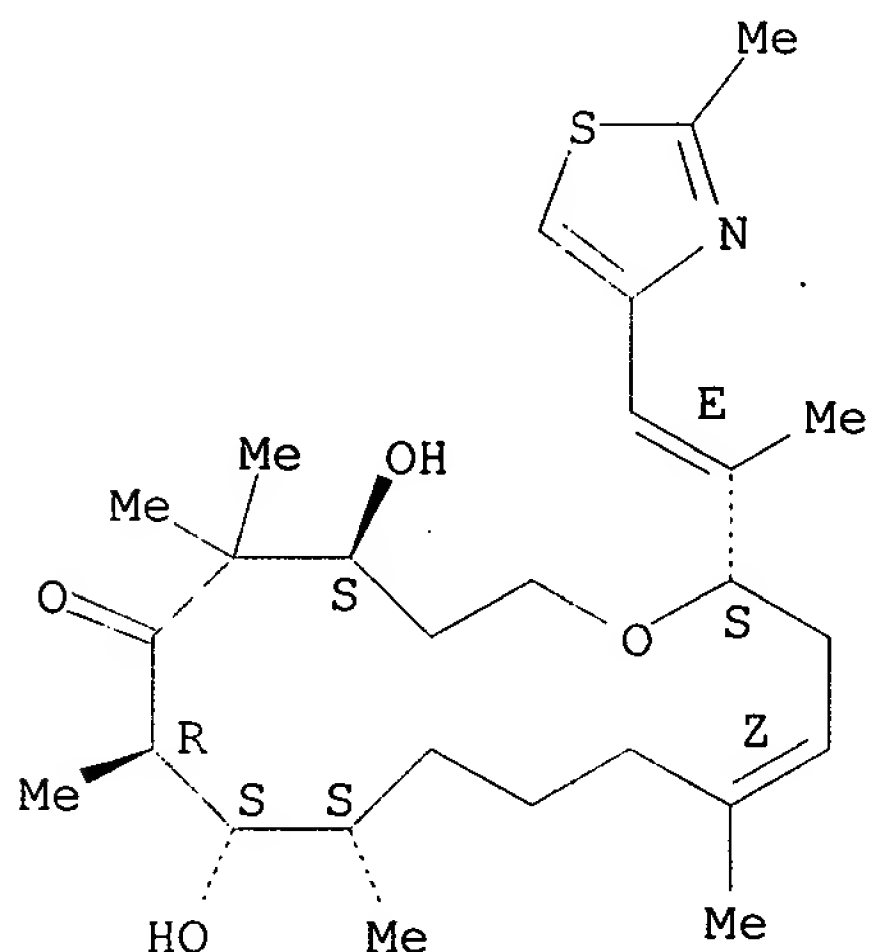
1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



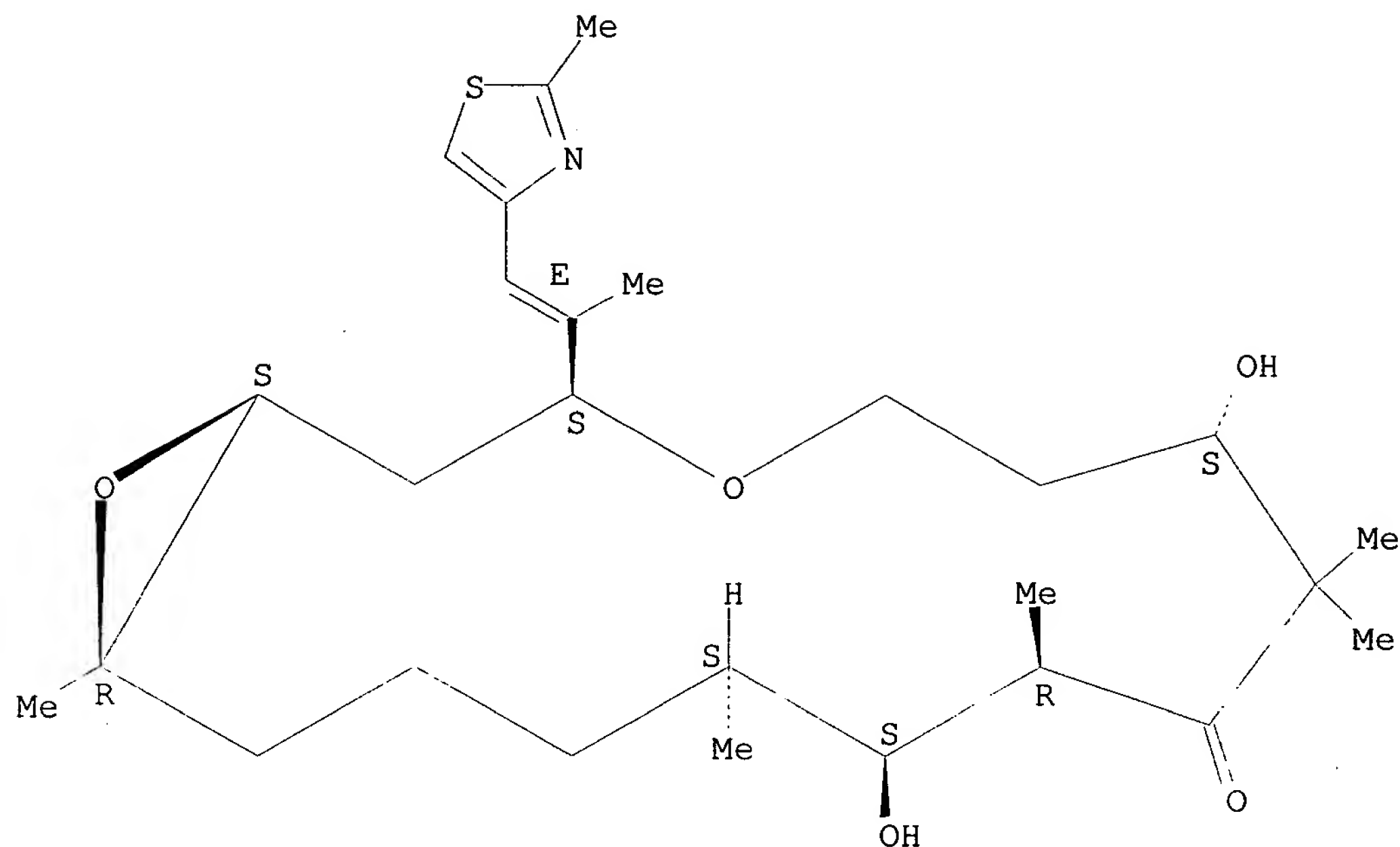
RN 220776-61-4 CAPLUS
CN Oxacyclohexadec-13-en-6-one,
4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-[(1E)-
1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-62-5 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecan-9-one, 7,11-dihydroxy-8,8,10,12,16-
pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

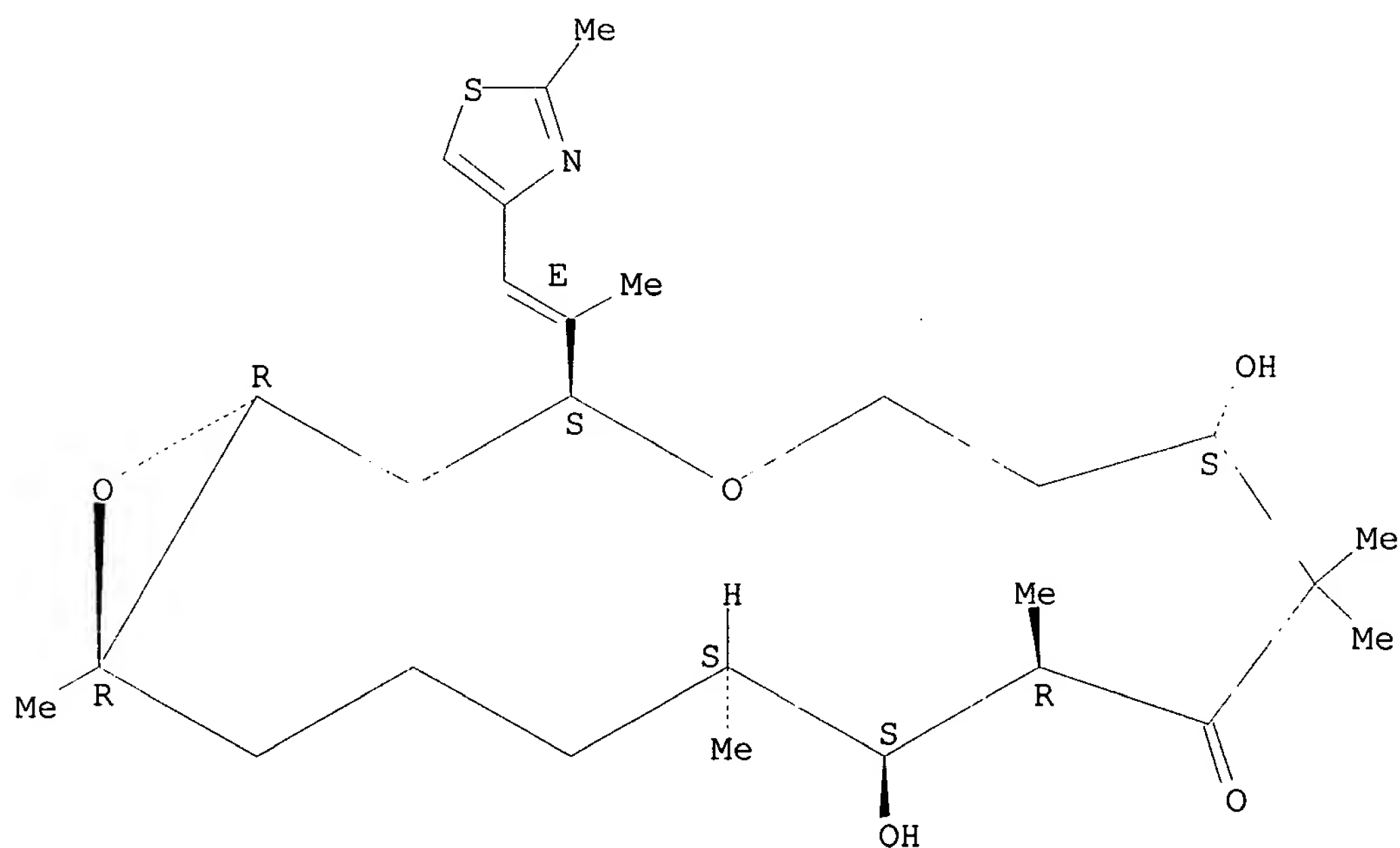
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-63-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecan-9-one, 7,11-dihydroxy-8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

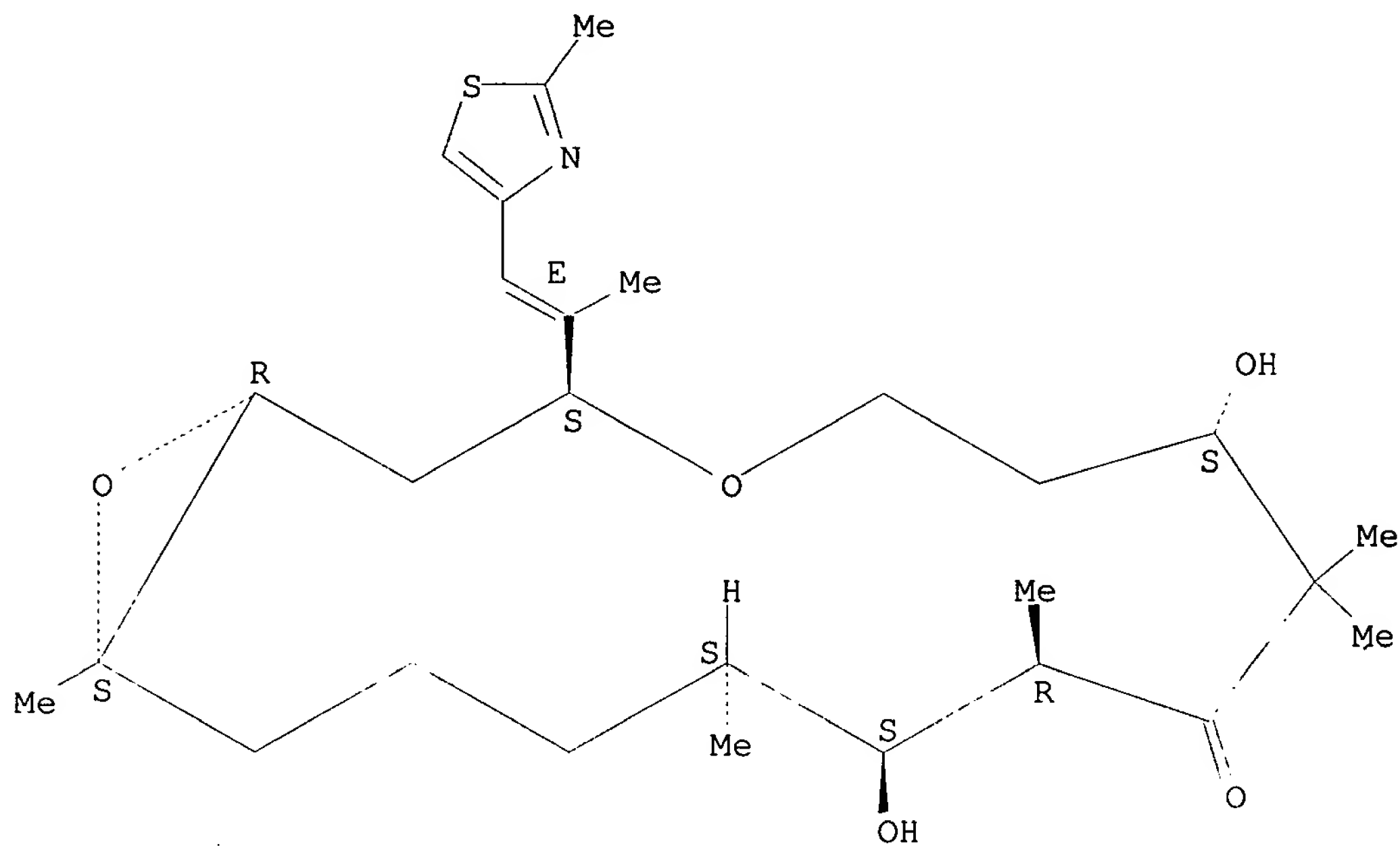


RN 220776-64-7 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecan-9-one, 7,11-dihydroxy-8,8,10,12,16-

pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

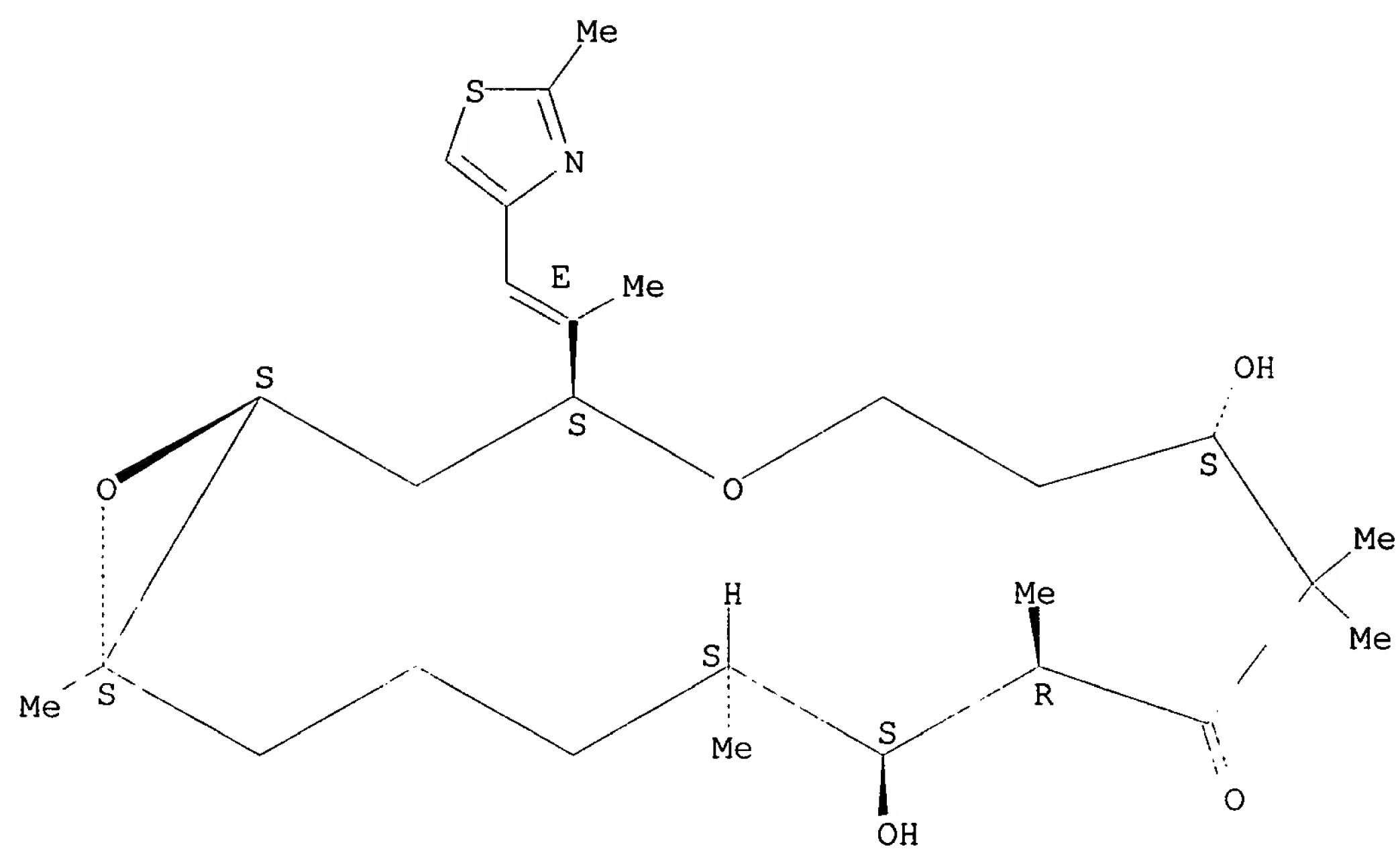
Absolute stereochemistry.
Double bond geometry as shown.



RN 220776-65-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecan-9-one, 7,11-dihydroxy-8,8,10,12,16-
pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



=> D BIB ABS HITSTR 3

L20 ANSWER 3 OF 28 CAPLUS COPYRIGHT 1999 ACS

AN 1999:64791 CAPLUS

DN 130:139205

TI syntheses of epothilone derivatives and intermediates for use in treatment

of hyperproliferative cellular disease

IN Vite, Gregory D.; Borzilleri, Robert M.; Kim, Soong-hoon; Johnson, James A.

PA Bristol-Myers Squibb Company, USA

SO PCT Int. Appl., 70 pp.

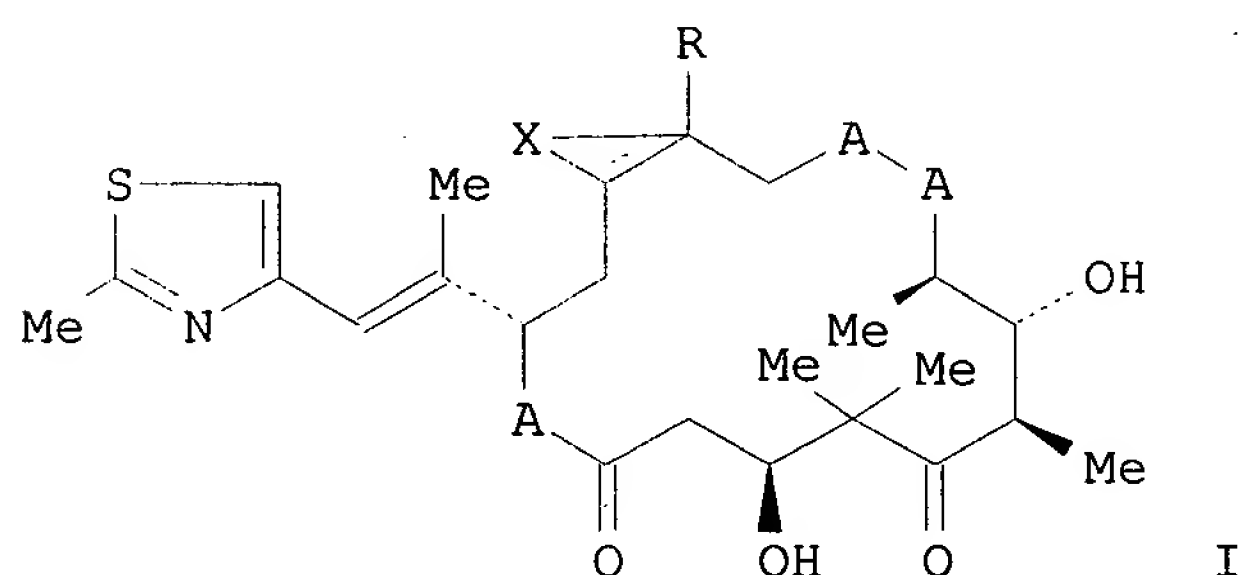
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9902514	A2	19990121	WO 98-US12550	19980616
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9879720	A1	19990208	AU 98-79720	19980616
PRAI	US 97-51951		19970708		
	US 97-67524		19971204		
	WO 98-US12550		19980616		
OS	MARPAT 130:139205				
GI					



AB Syntheses of epothilone derivs. (I) (R = H, Me; A = CH₂, O, NH; X = H when

bond double, .alpha.-epoxy when bond single) and intermediates for use in treatment of hyperproliferative cellular disease are described.

IT 219989-84-1P 219989-85-2P 219989-87-4P

219990-05-3P 219990-06-4P 219990-07-5P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(syntheses of epothilone analogs and intermediates for use in treatment

of hyperproliferative cellular disease)

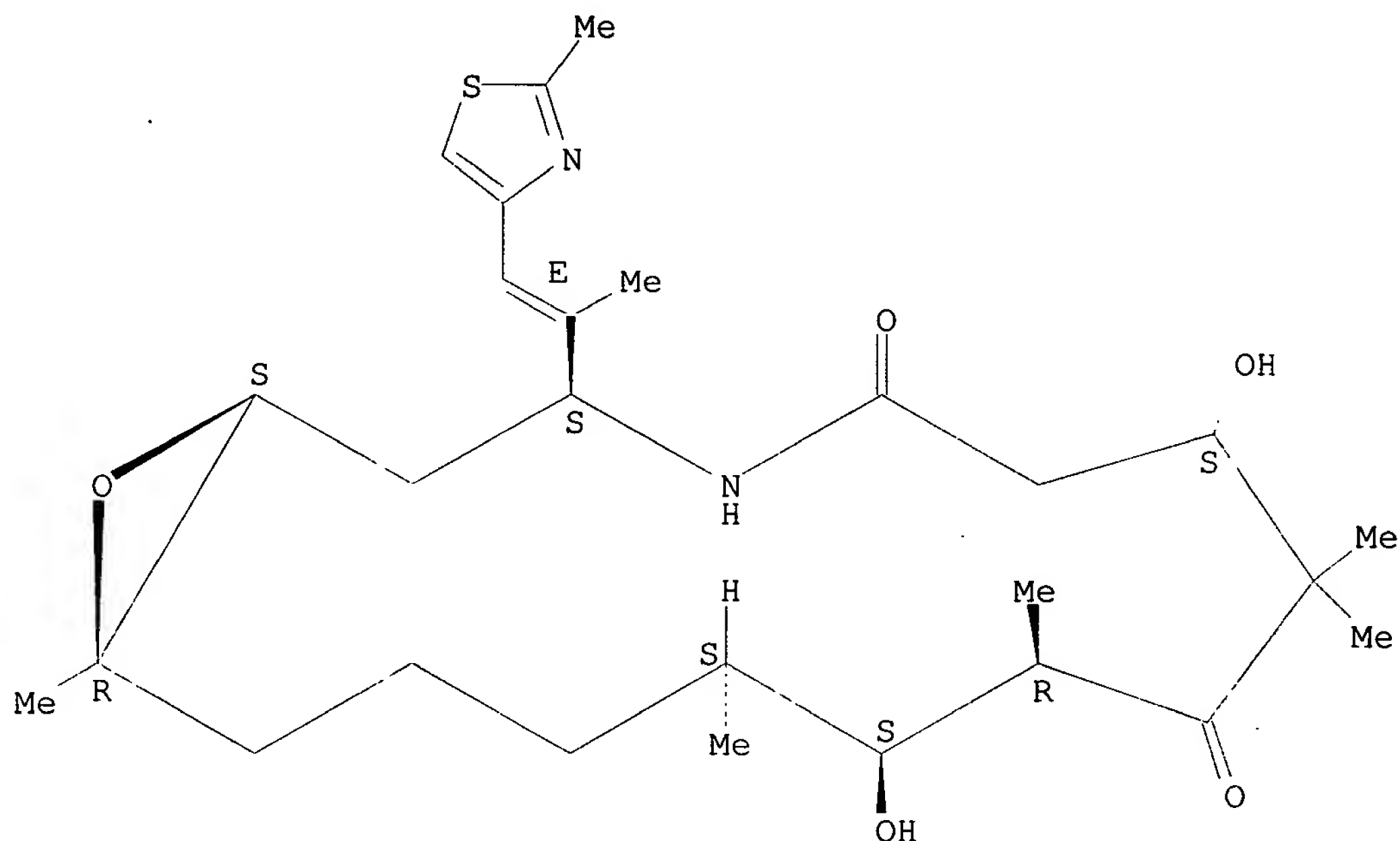
RN 219989-84-1 CAPLUS

CN 17-Oxa-4-azabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



RN 219989-85-2 CAPLUS

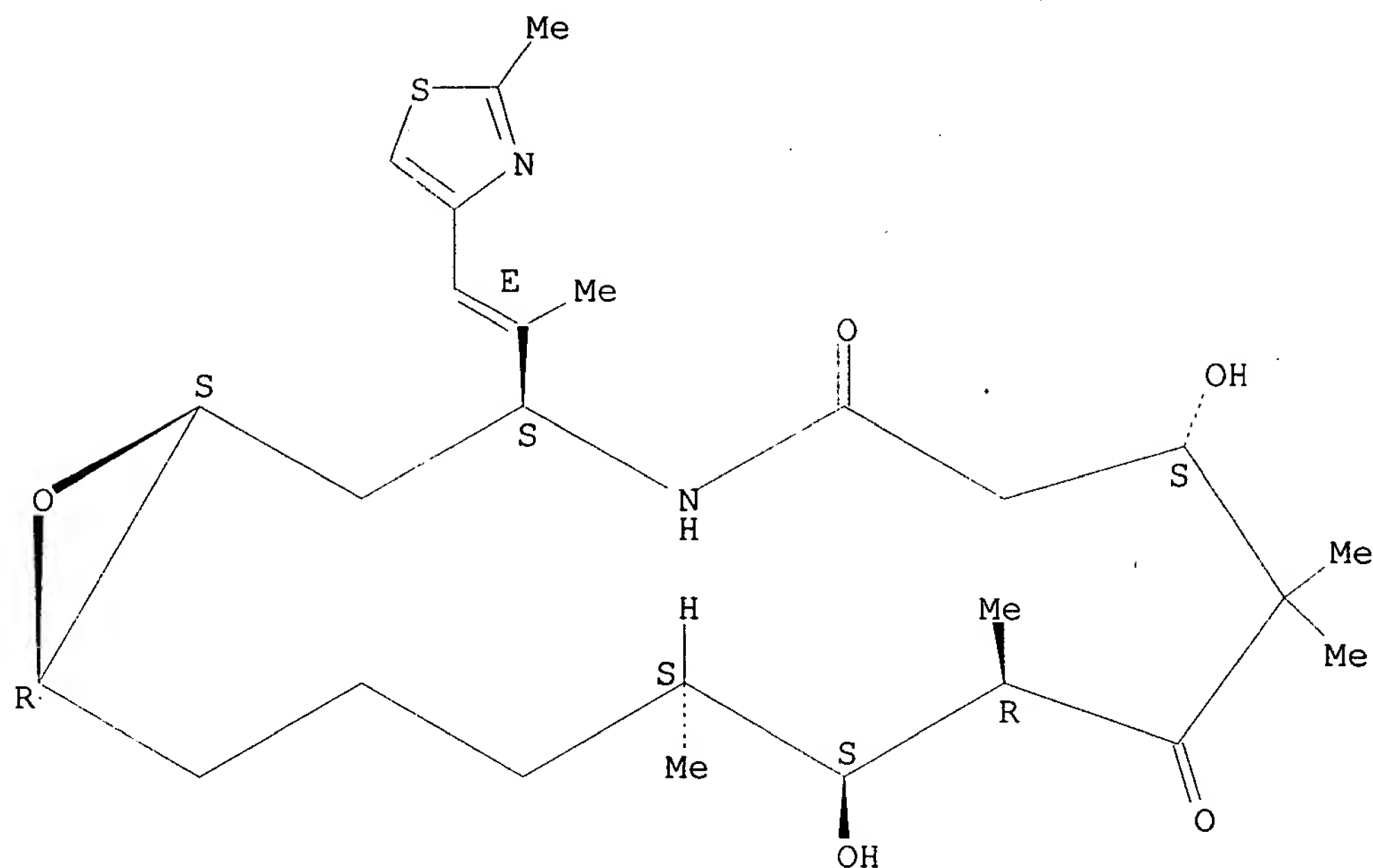
CN 17-Oxa-4-azabicyclo[14.1.0]heptadecane-5,9-dione,

7,11-dihydroxy-8,8,10,12-

tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

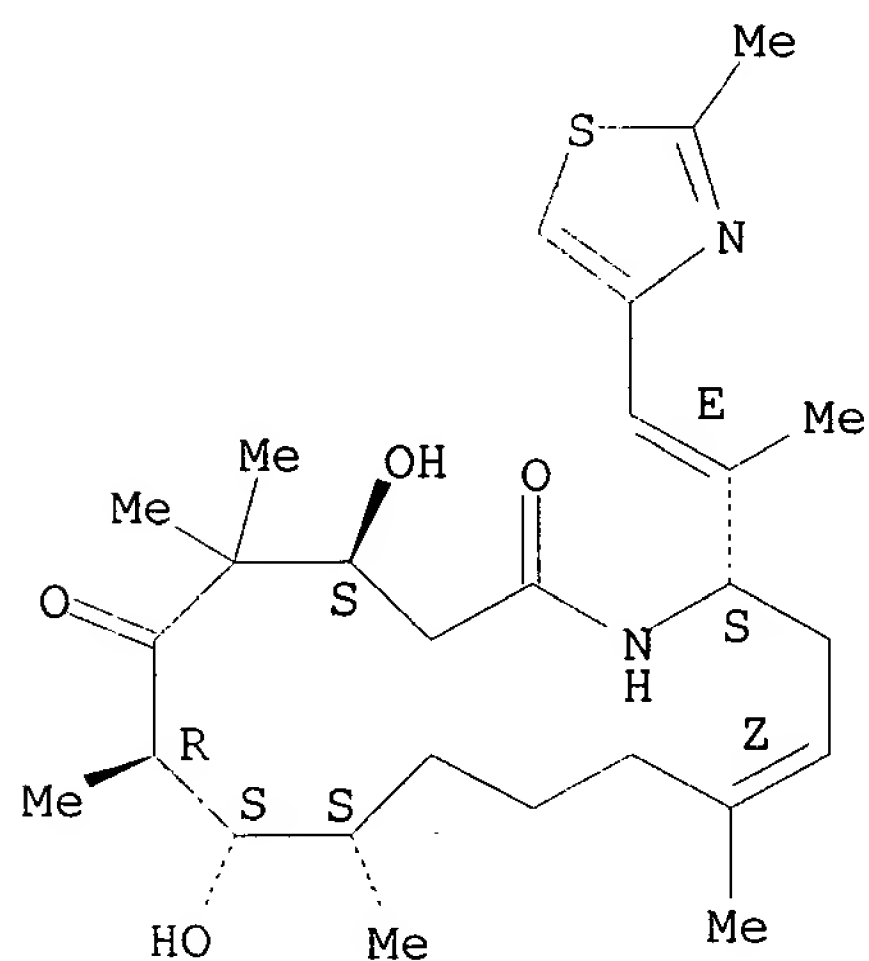
Absolute stereochemistry.

Double bond geometry as shown.



RN 219989-87-4 CAPLUS
 CN Azacyclohexadec-13-ene-2,6-dione,
 4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-
 [(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)-
 (9CI) (CA INDEX NAME)

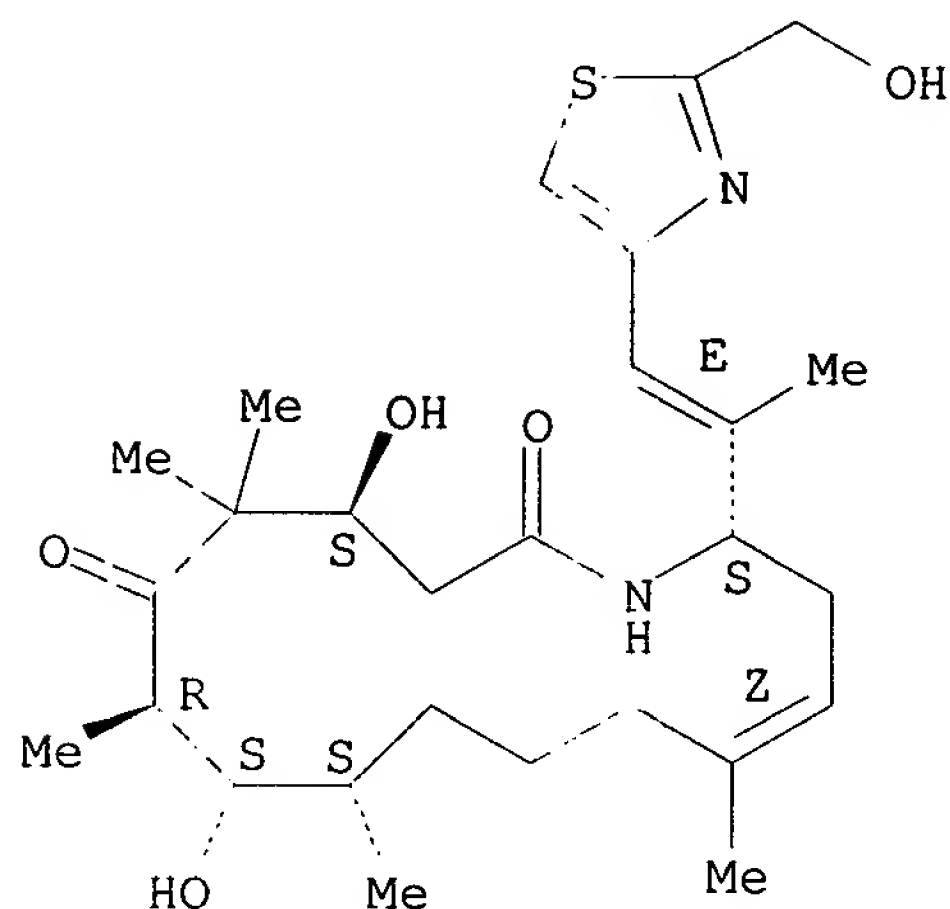
Absolute stereochemistry.
 Double bond geometry as shown.



RN 219990-05-3 CAPLUS
 CN Azacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-16-[(1E)-2-[2-
 (hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-5,5,7,9,13-pentamethyl-,
 (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

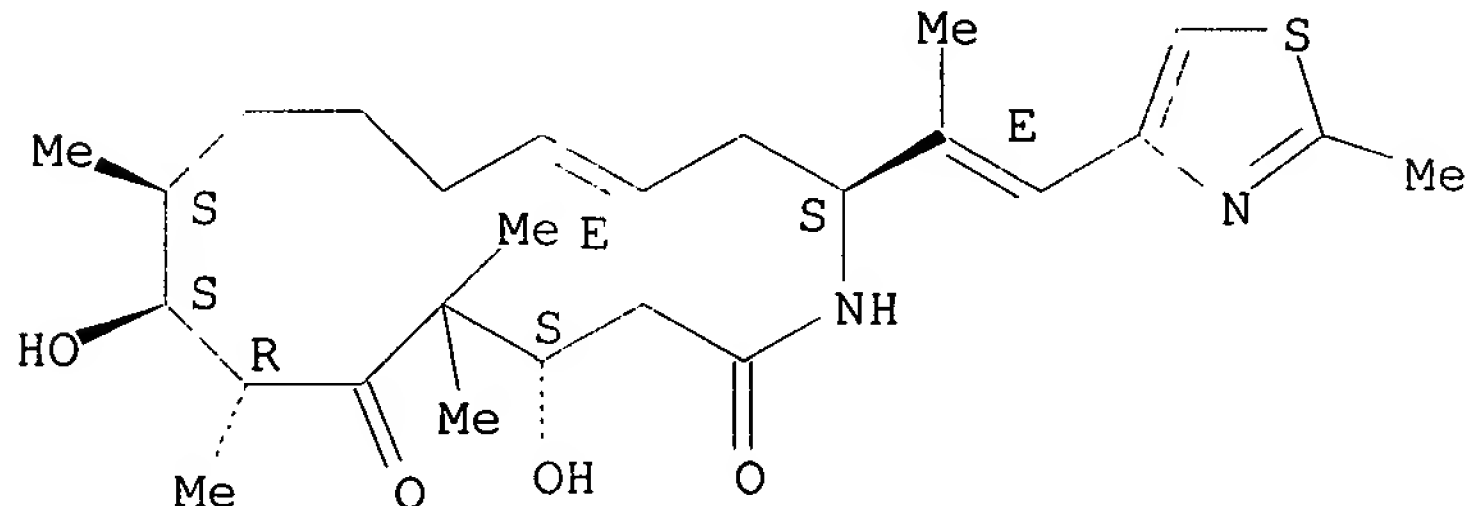


RN 219990-06-4 CAPLUS

CN Azacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



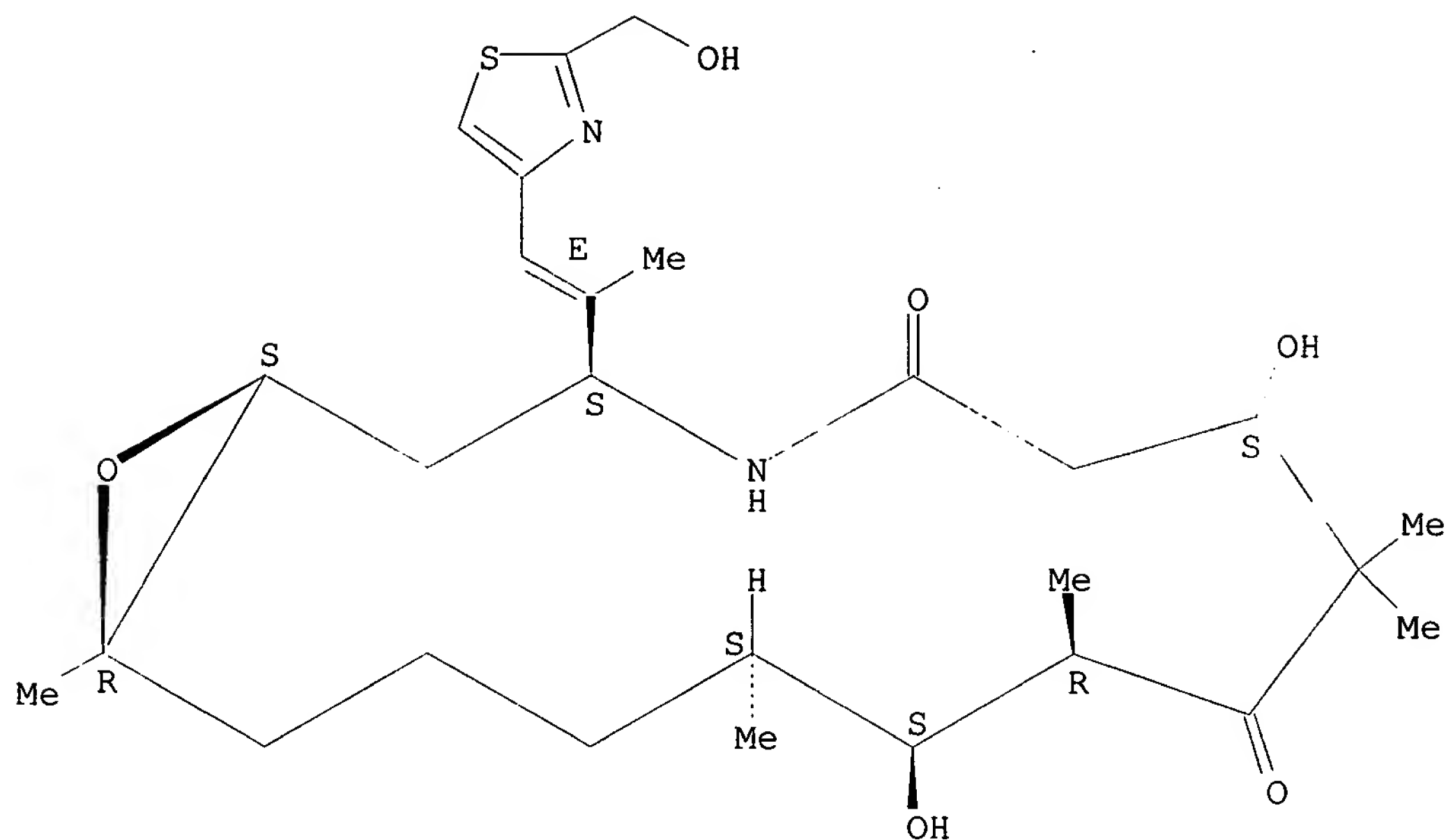
RN 219990-07-5 CAPLUS

CN 17-Oxa-4-azabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3-[(1E)-2-

[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-8,8,10,12,16-pentamethyl-, (1S,3S,7S,10R,11S,12S,16R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



IT 219989-69-2 219989-70-5 219989-71-6
 219989-72-7 219989-73-8 219989-74-9
 219989-75-0 219989-76-1 219989-77-2
 219989-79-4 219989-80-7 219989-81-8
 219989-82-9 219989-83-0 219989-88-5
 219989-89-6 219989-90-9 219989-91-0
 219989-92-1 219989-93-2 219989-94-3
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 219990-01-9 219990-02-0 219990-03-1
 219990-04-2 220009-36-9 220009-41-6

RL: BAC (Biological activity or effector, except adverse); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)

(syntheses of epothilone analogs and intermediates for use in
 treatment
 of hyperproliferative cellular disease)

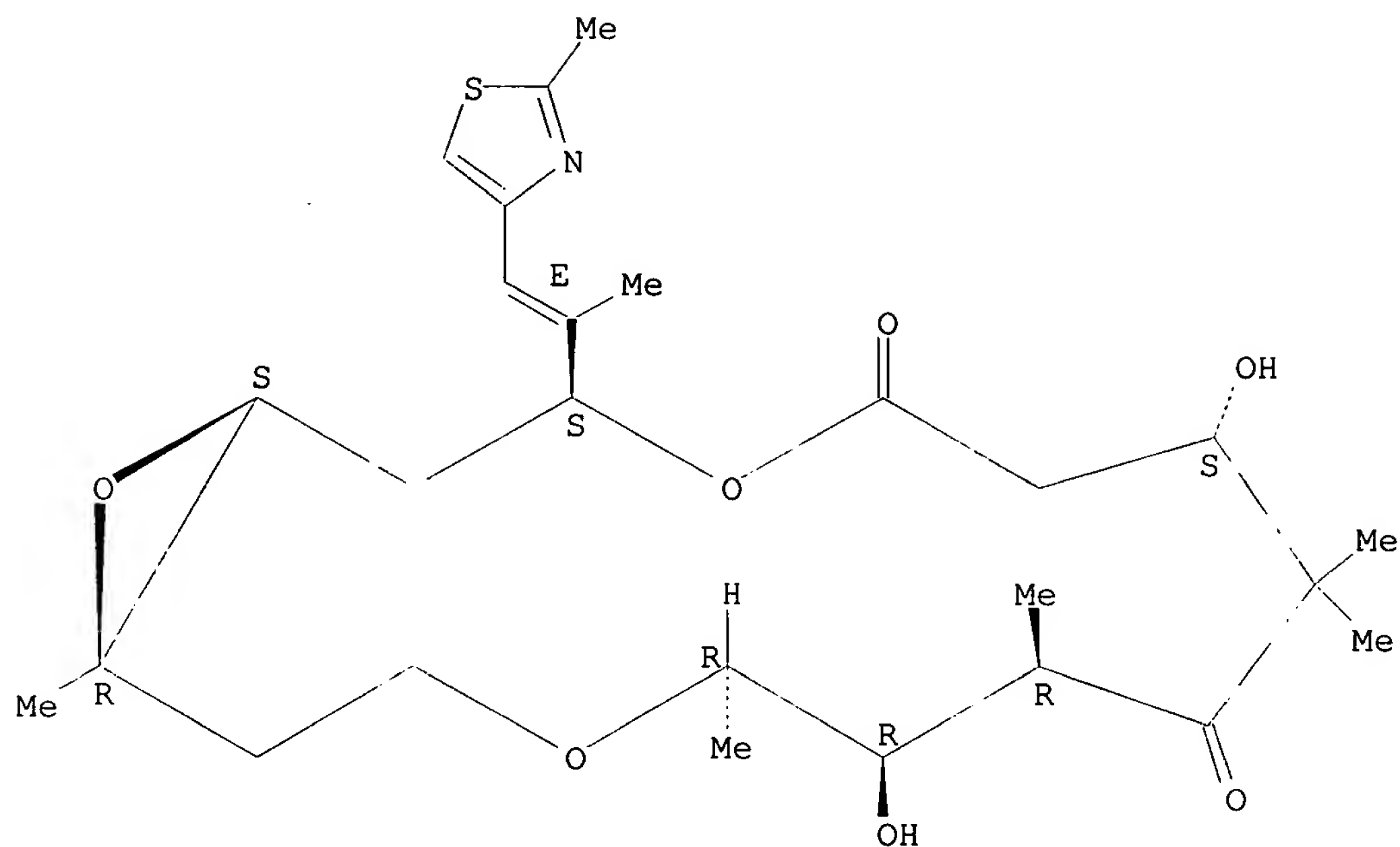
RN 219989-69-2 CAPLUS

CN 4,13,17-Trioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
 , (1S,3S,7S,10R,11R,12R,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

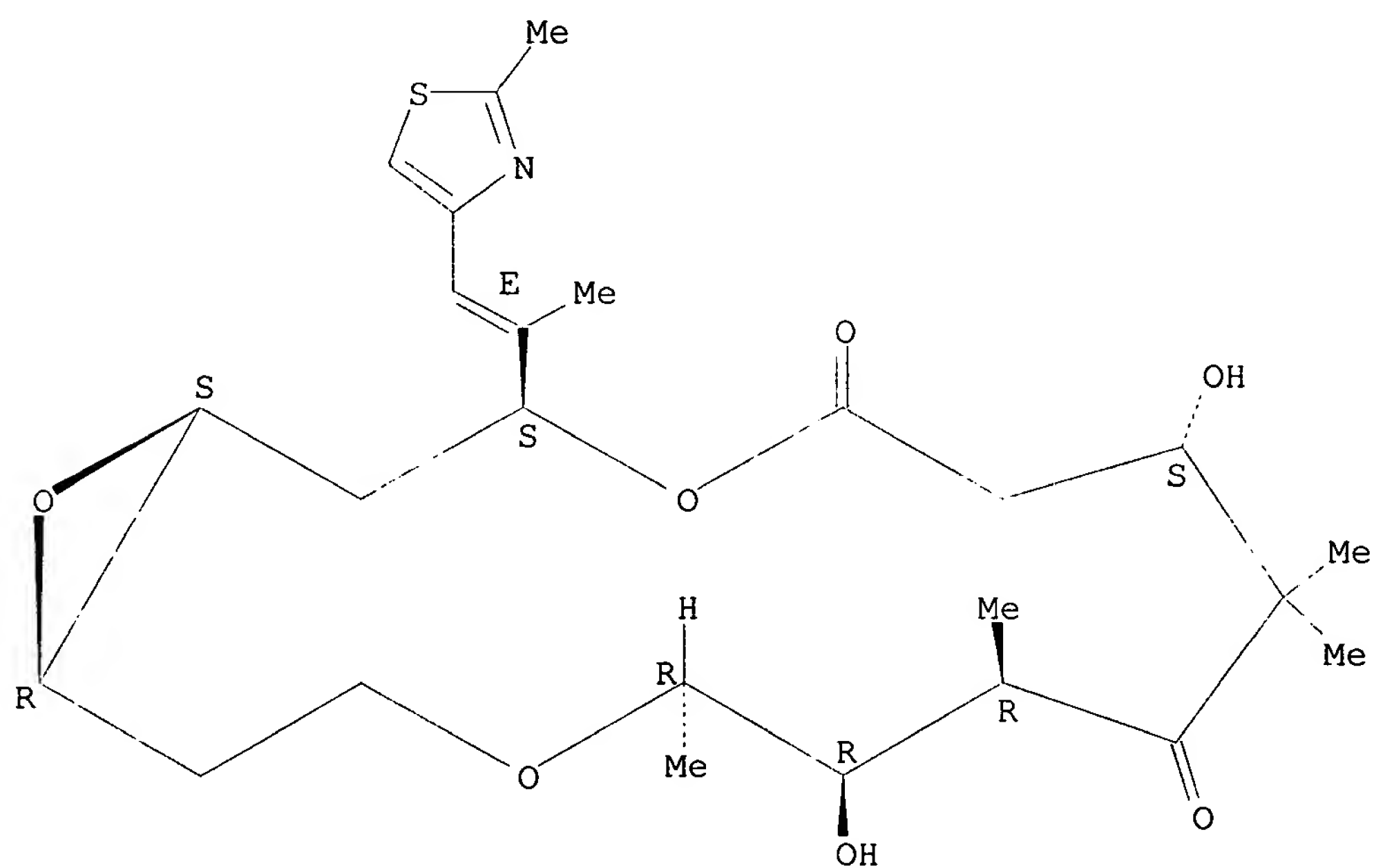
Double bond geometry as shown.



RN 219989-70-5 CAPLUS

CN 4,13,17-Trioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11R,12R,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

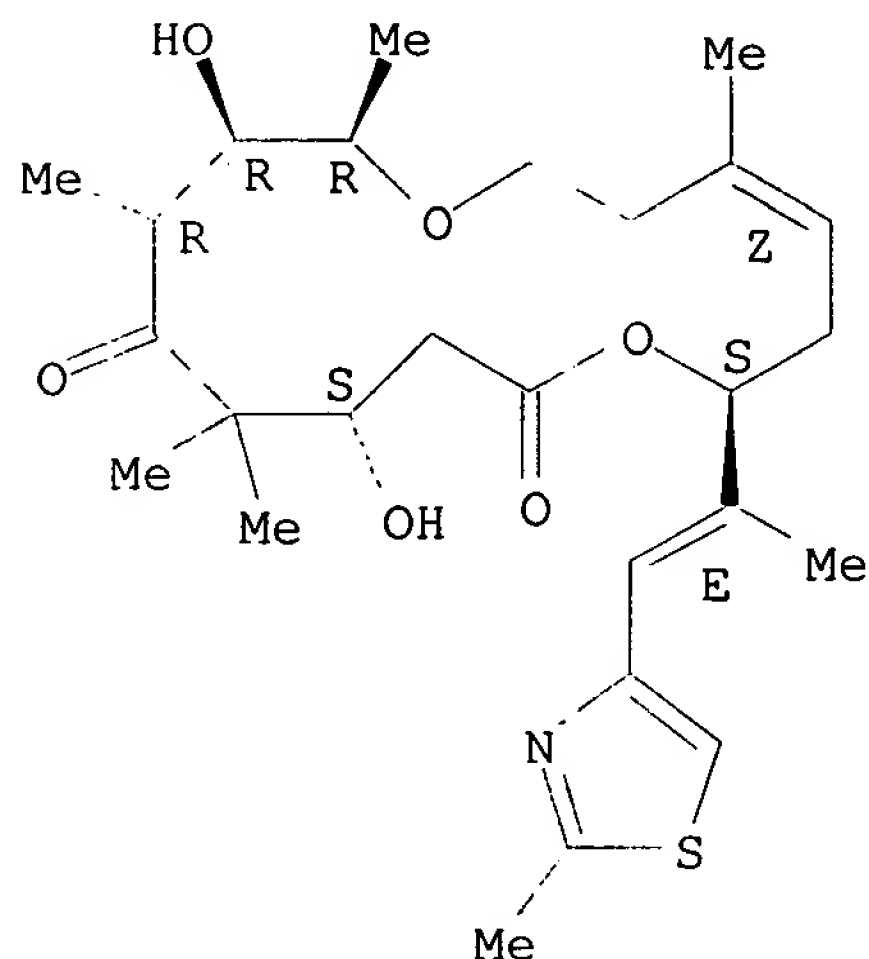


RN 219989-71-6 CAPLUS

CN 1,8-Dioxacyclohexadec-4-ene-9,13-dione, 11,15-dihydroxy-4,12,12,14,16-

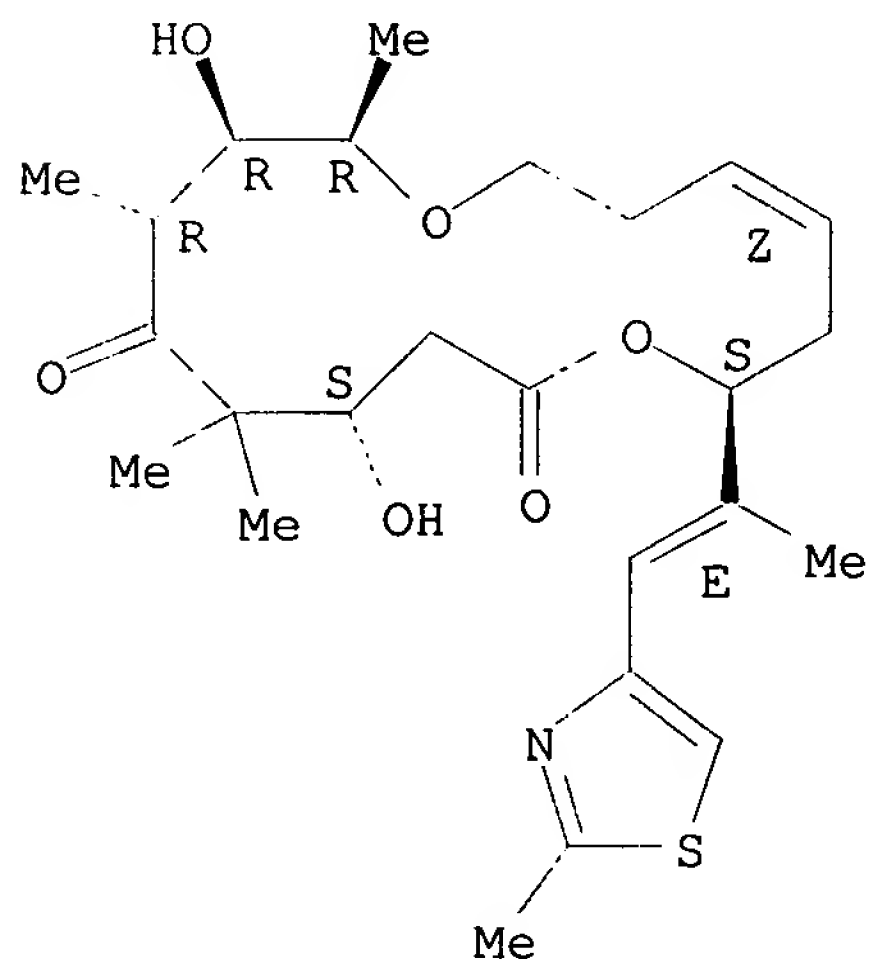
pentamethyl-7-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4Z,7S,11S,14R,15R,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-72-7 CAPLUS
CN 1,8-Dioxacyclohexadec-4-ene-9,13-dione, 11,15-dihydroxy-12,12,14,16-
tetramethyl-7-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4Z,7S,11S,14R,15R,16R)- (9CI) (CA INDEX NAME)

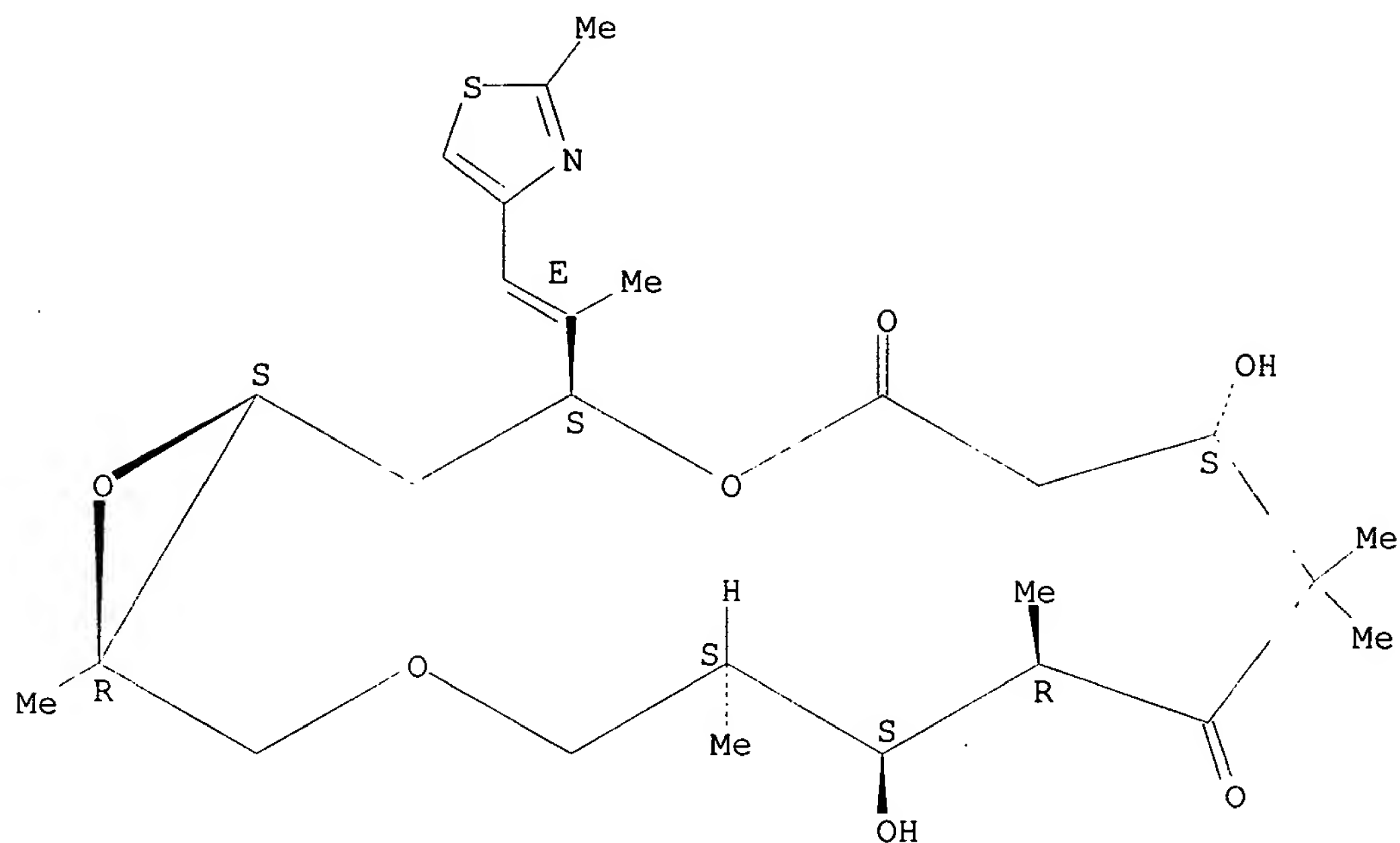
Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-73-8 CAPLUS
CN 3,13,17-Trioxabicyclo[14.1.0]heptadecane-8,12-dione, 6,10-dihydroxy-
1,5,7,9,9-pentamethyl-14-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1R,5S,6S,7R,10S,14S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

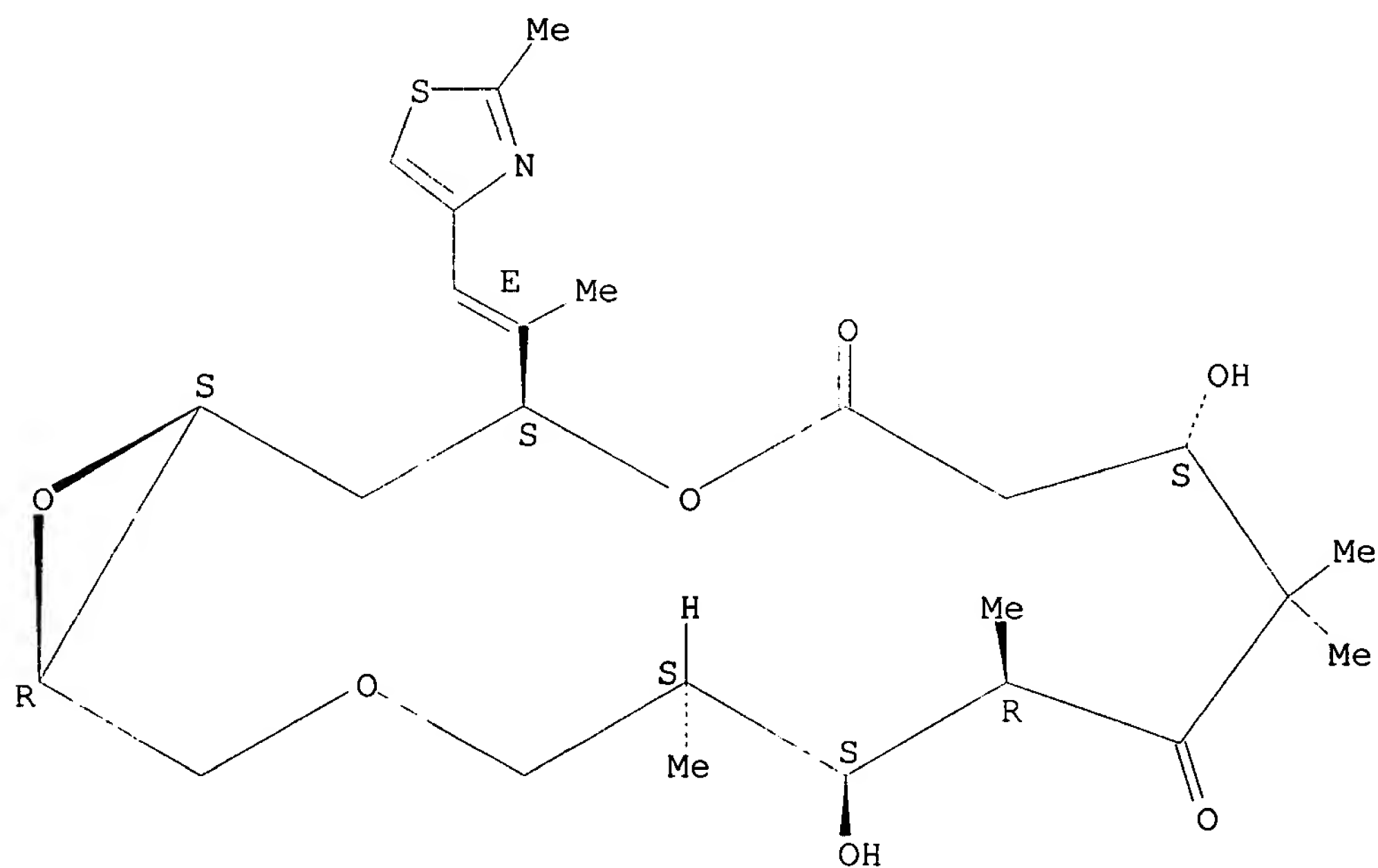
Double bond geometry as shown.



RN 219989-74-9 CAPLUS

CN 3,13,17-Trioxabicyclo[14.1.0]heptadecane-8,12-dione, 6,10-dihydroxy-5,7,9,9-tetramethyl-14-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,5S,6S,7R,10S,14S,16S)- (9CI) (CA INDEX NAME)

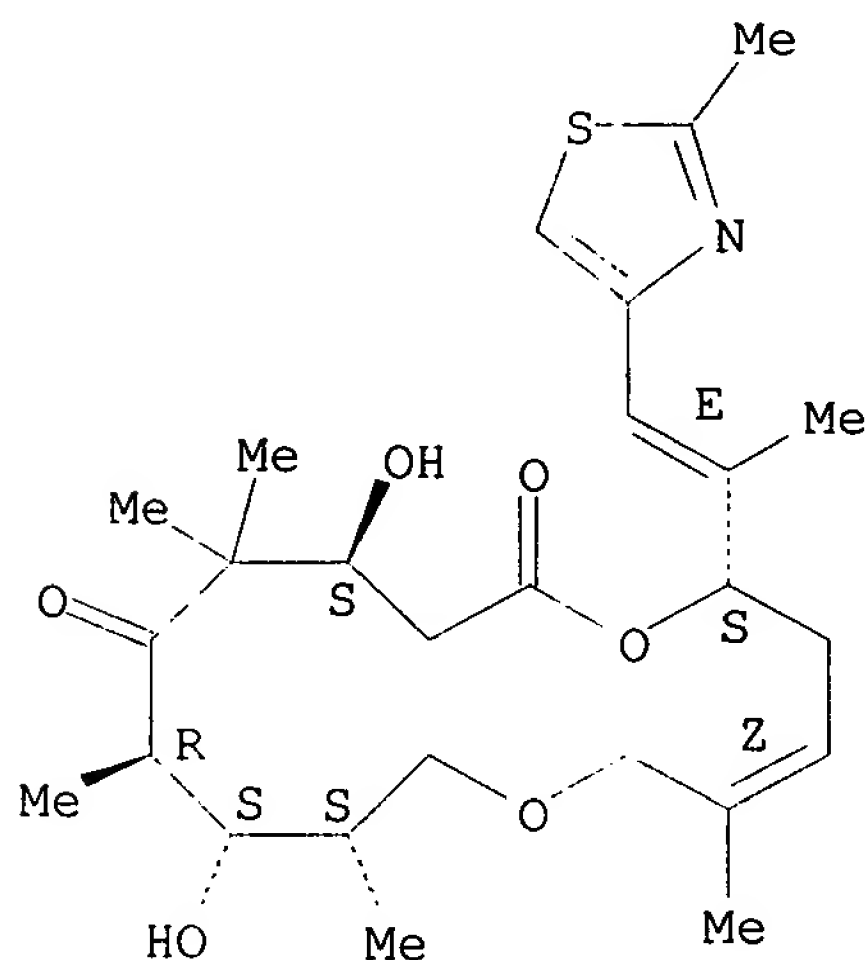
Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-75-0 CAPLUS

CN 1,7-Dioxacyclohexadec-3-ene-8,12-dione, 10,14-dihydroxy-3,11,11,13,15-pentamethyl-6-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (3Z,6S,10S,13R,14S,15S)- (9CI) (CA INDEX NAME)

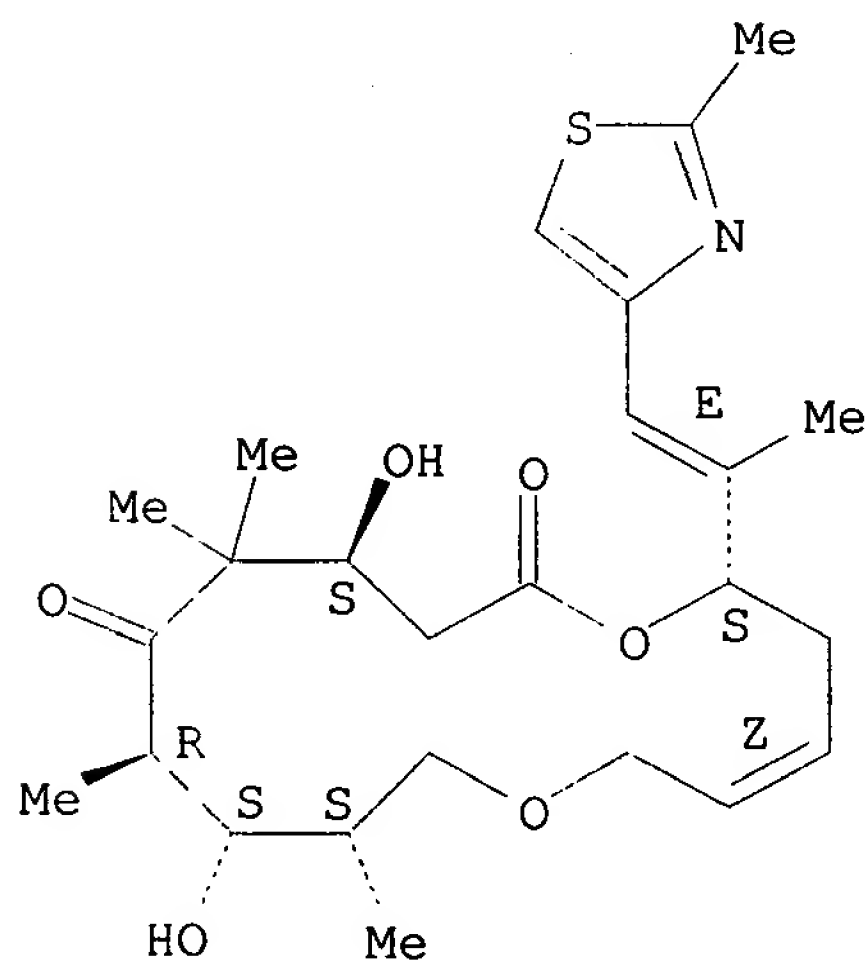
Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-76-1 CAPLUS

CN 1,7-Dioxacyclohexadec-3-ene-8,12-dione, 10,14-dihydroxy-11,11,13,15-tetramethyl-6-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (3Z,6S,10S,13R,14S,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

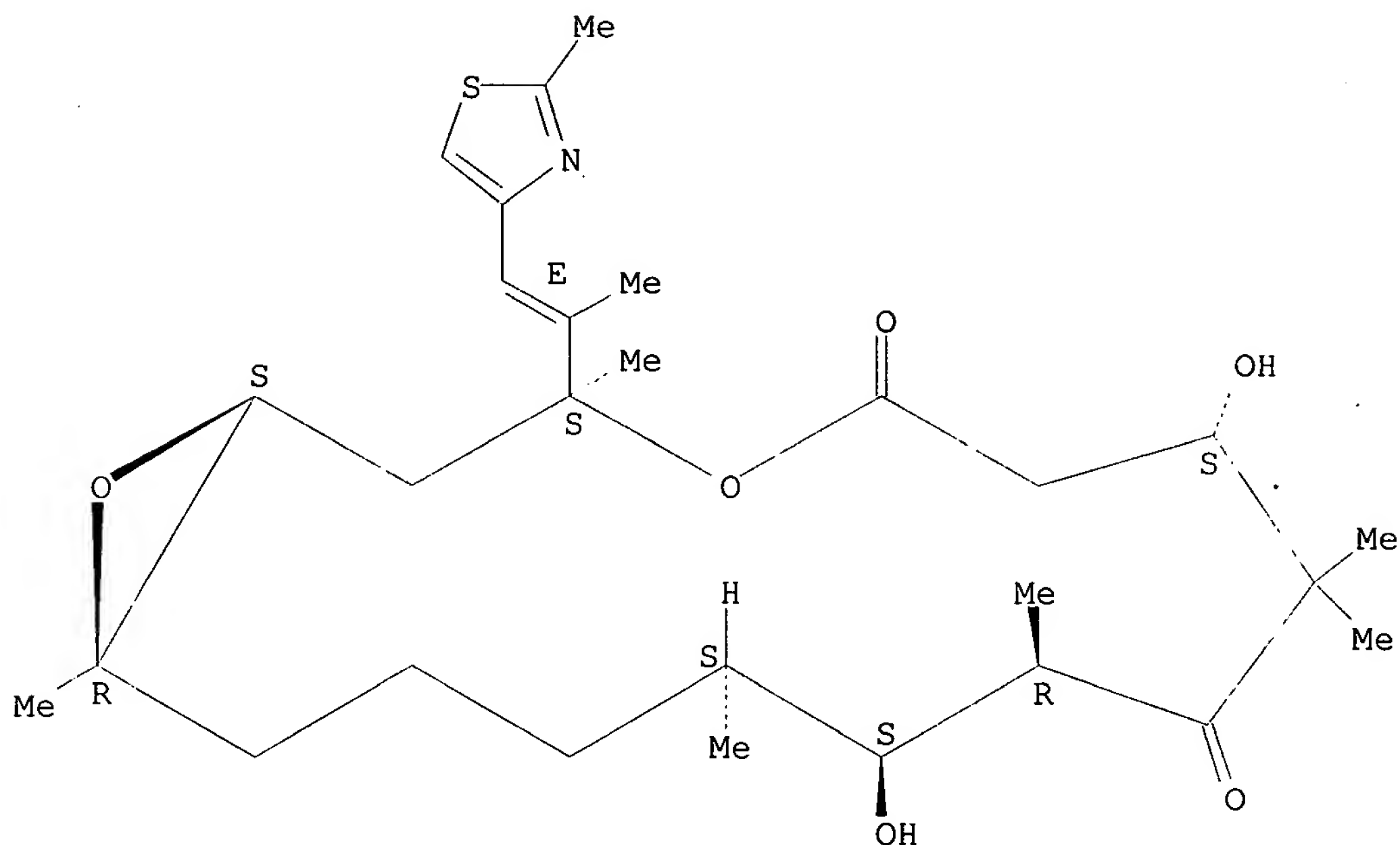


RN 219989-77-2 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3,8,8,10,12,16-hexamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

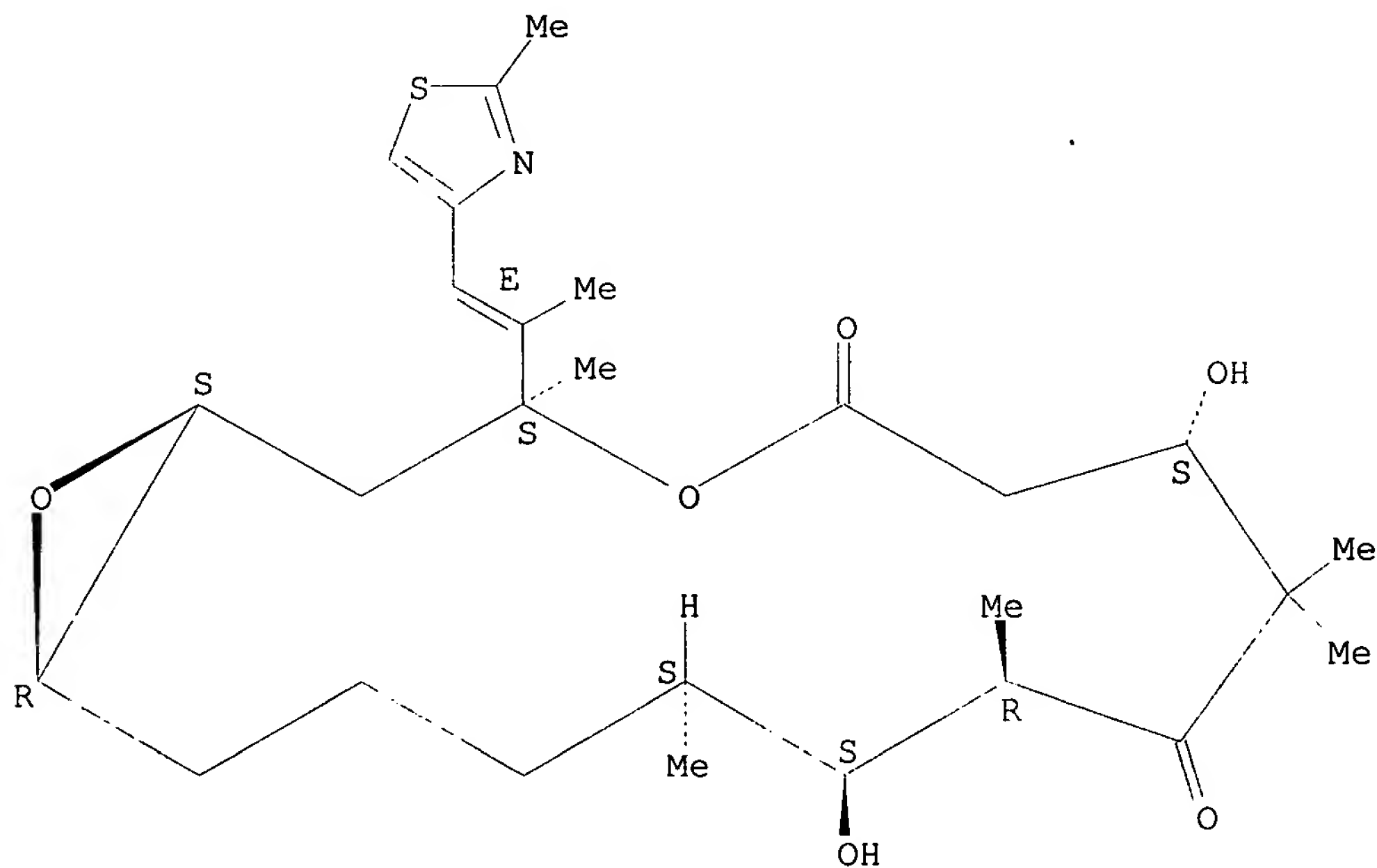
Absolute stereochemistry.

Double bond geometry as shown.



RN 219989-79-4 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione,
7,11-dihydroxy-3,8,8,10,12-
pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

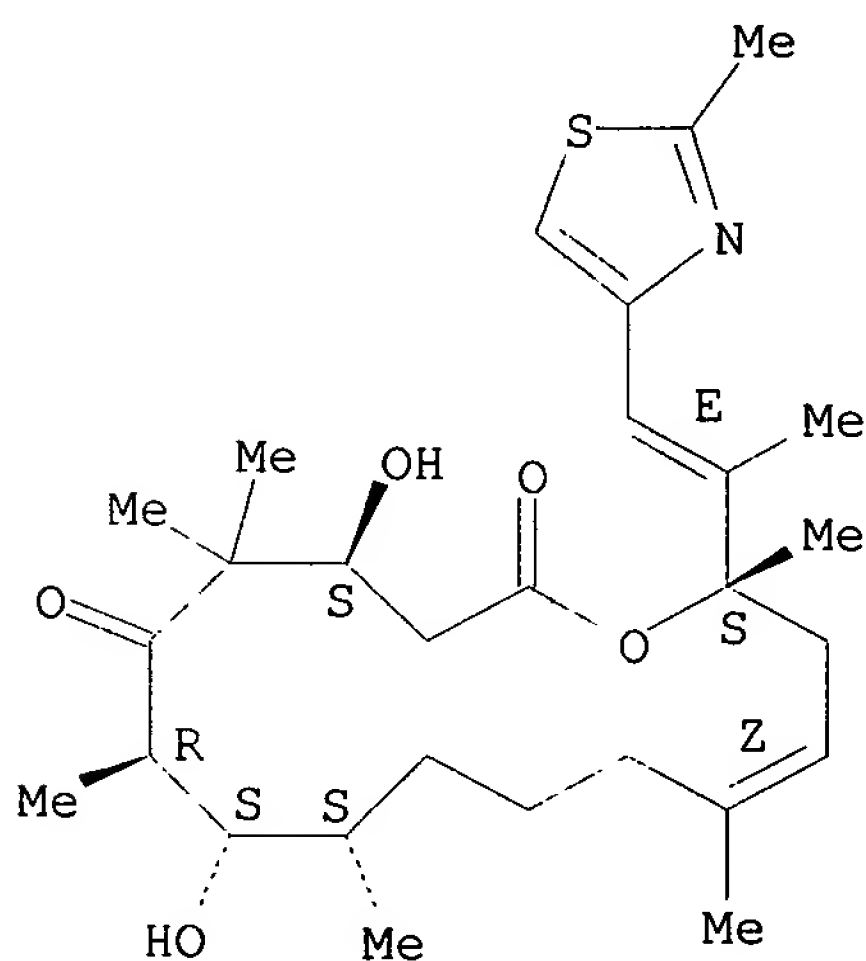


RN 219989-80-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,13,16-hexamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

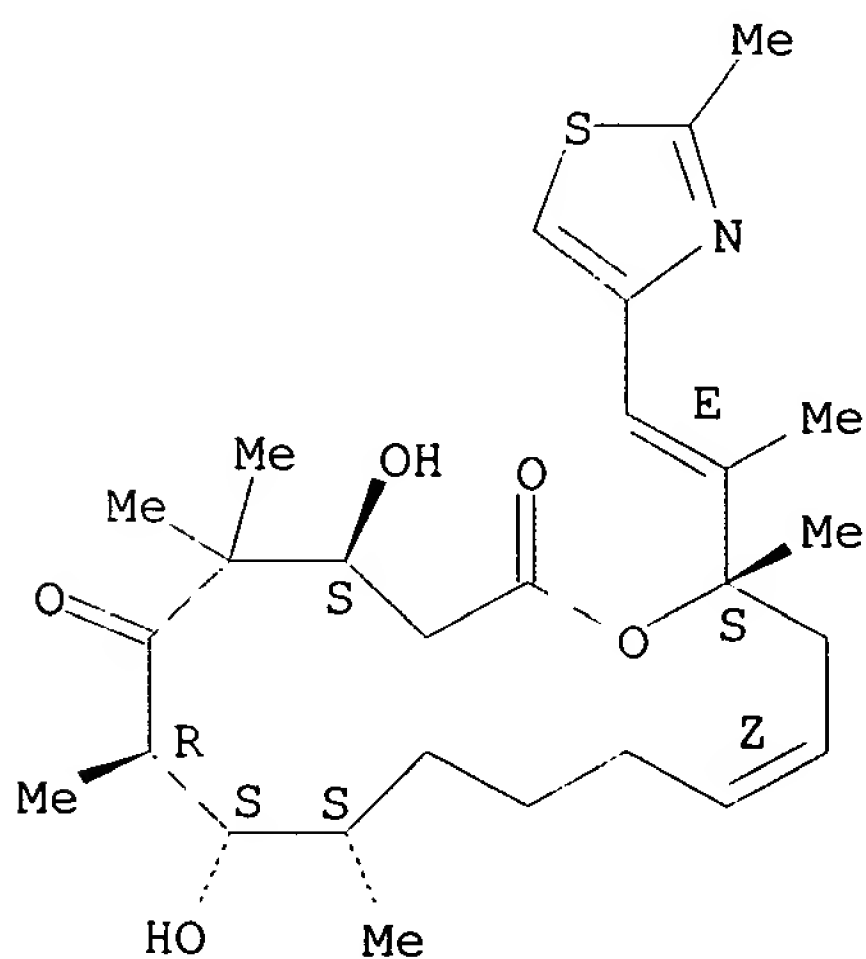


RN 219989-81-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,16-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

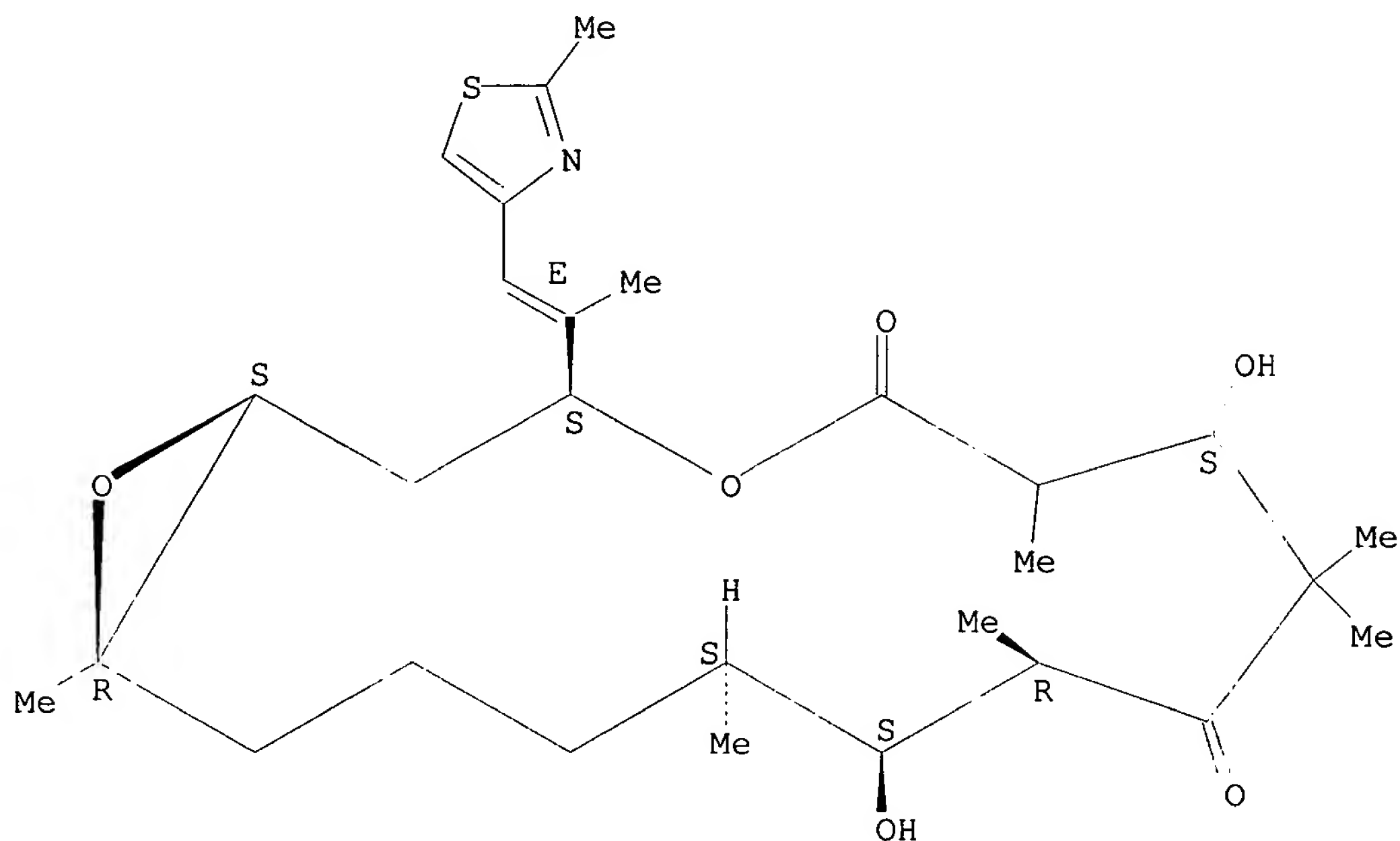


RN 219989-82-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-6,8,8,10,12,16-hexamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-

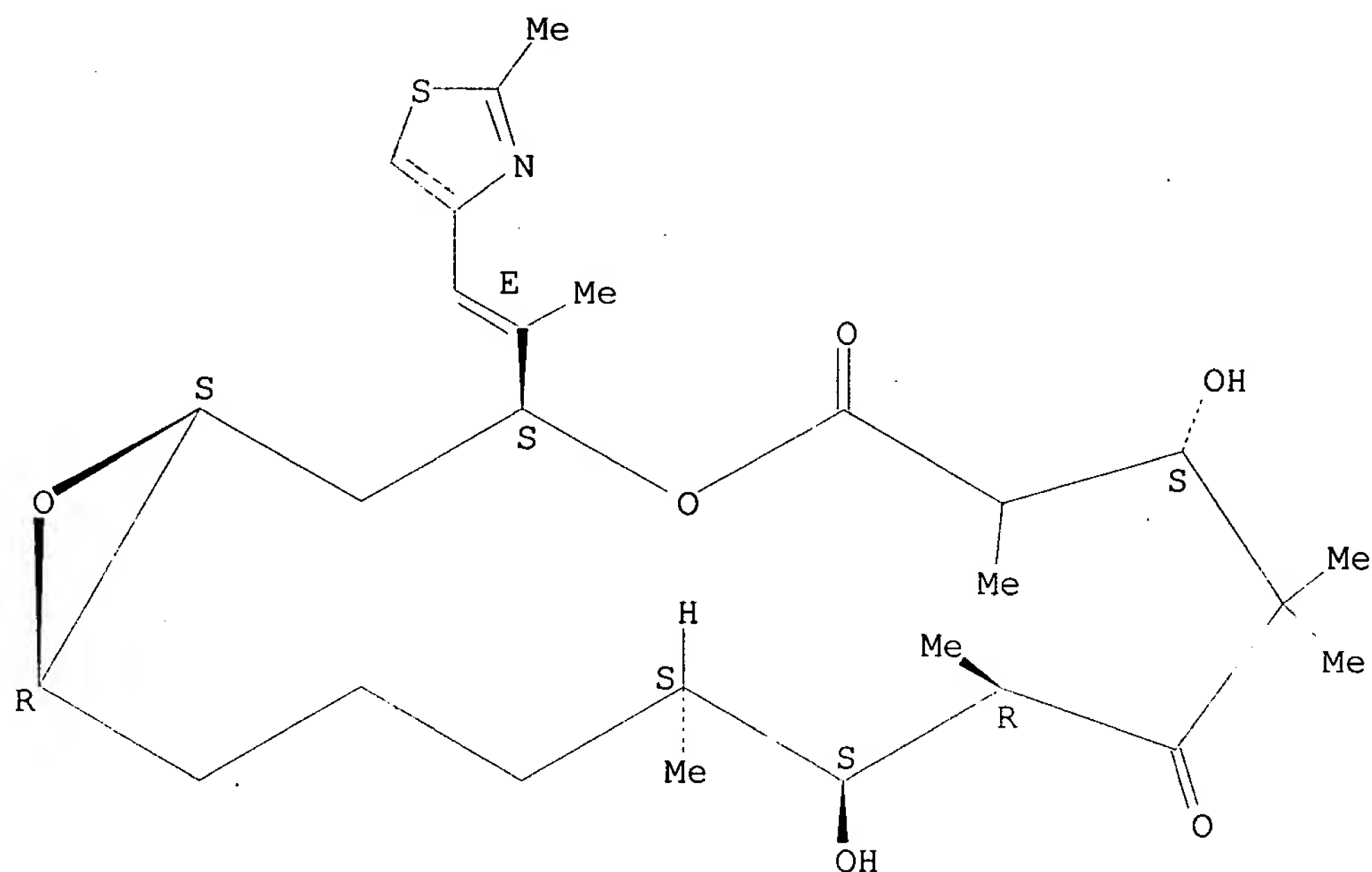
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-83-0 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione,
7,11-dihydroxy-6,8,8,10,12-
pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

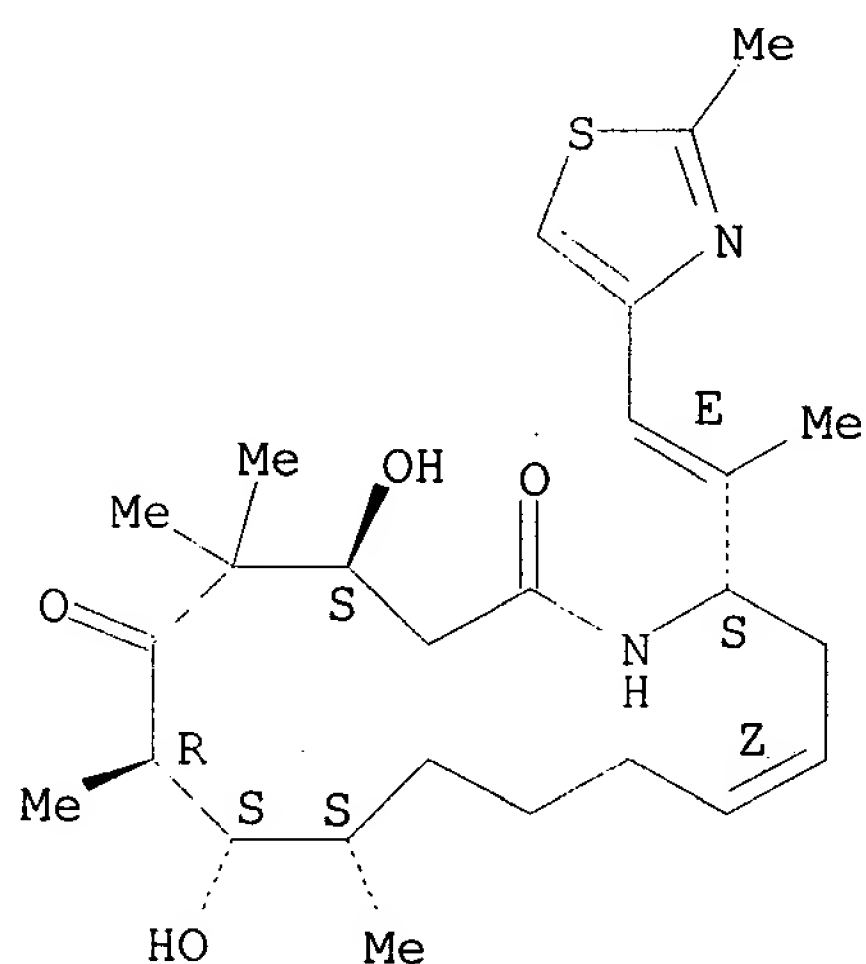
Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-88-5 CAPLUS

CN Azacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)-(9CI) (CA INDEX NAME)

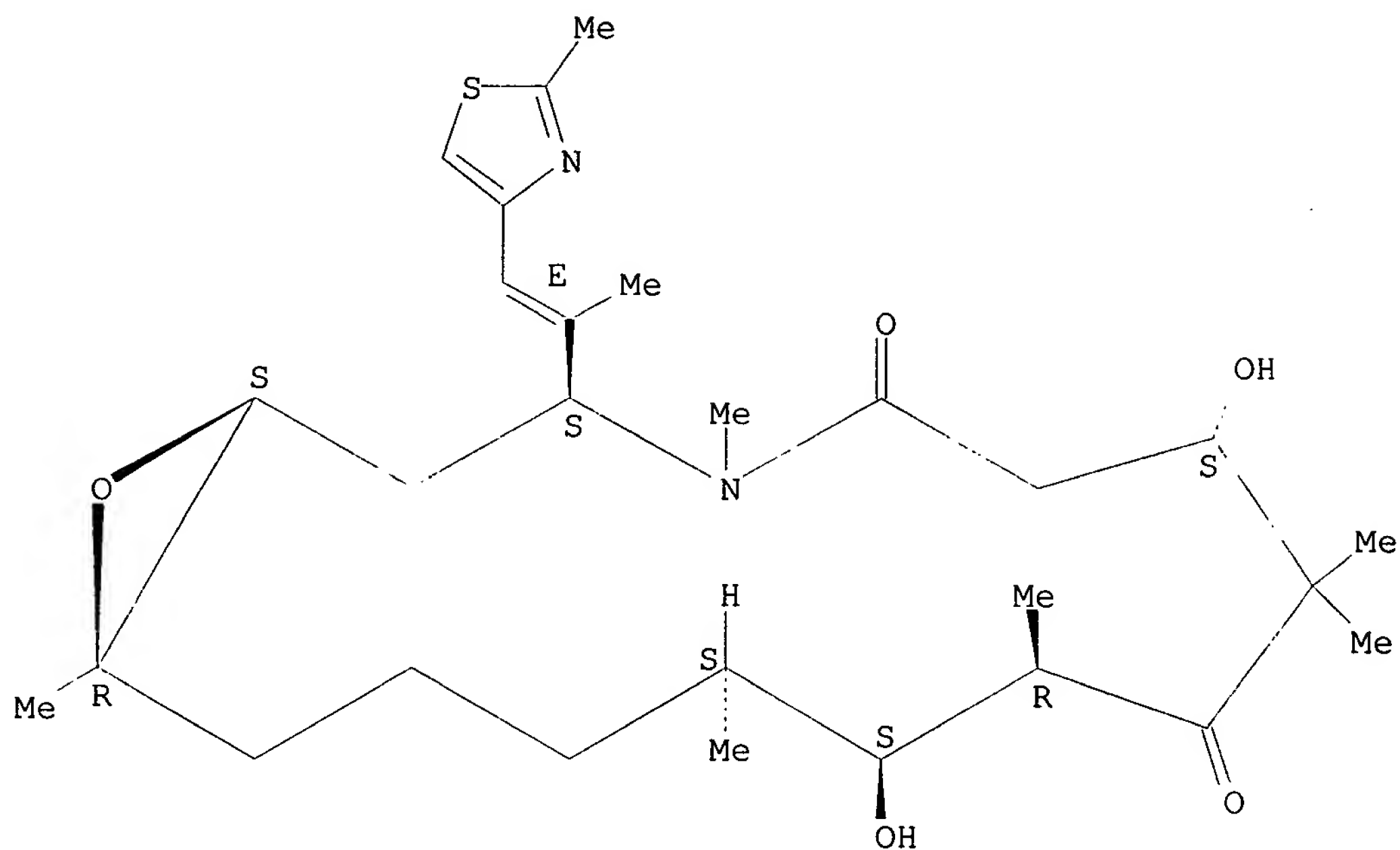
Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-89-6 CAPLUS

CN 17-Oxa-4-azabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-4,8,8,10,12,16-hexamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



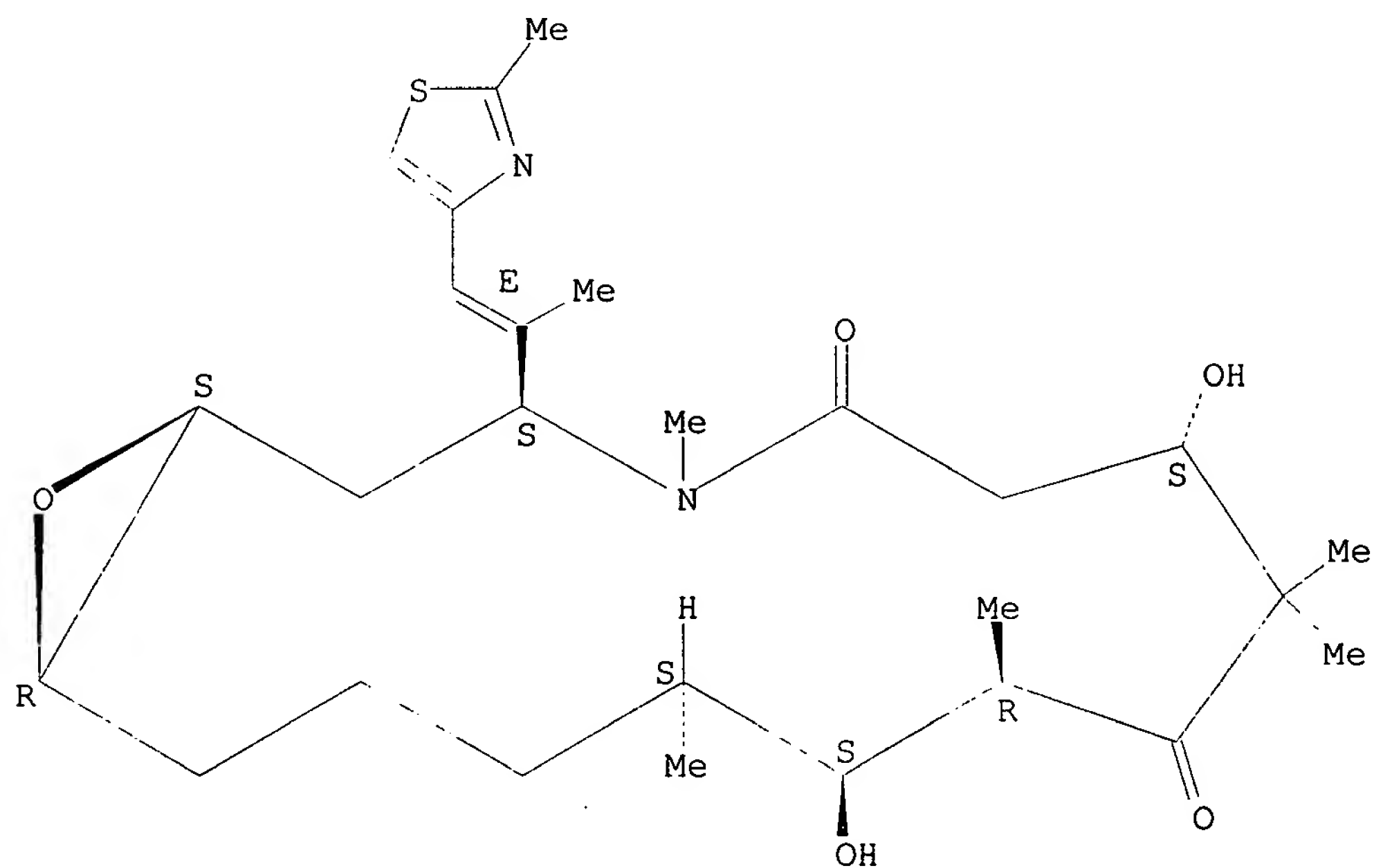
RN 219989-90-9 CAPLUS

CN 17-Oxa-4-azabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

4,8,8,10,12-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

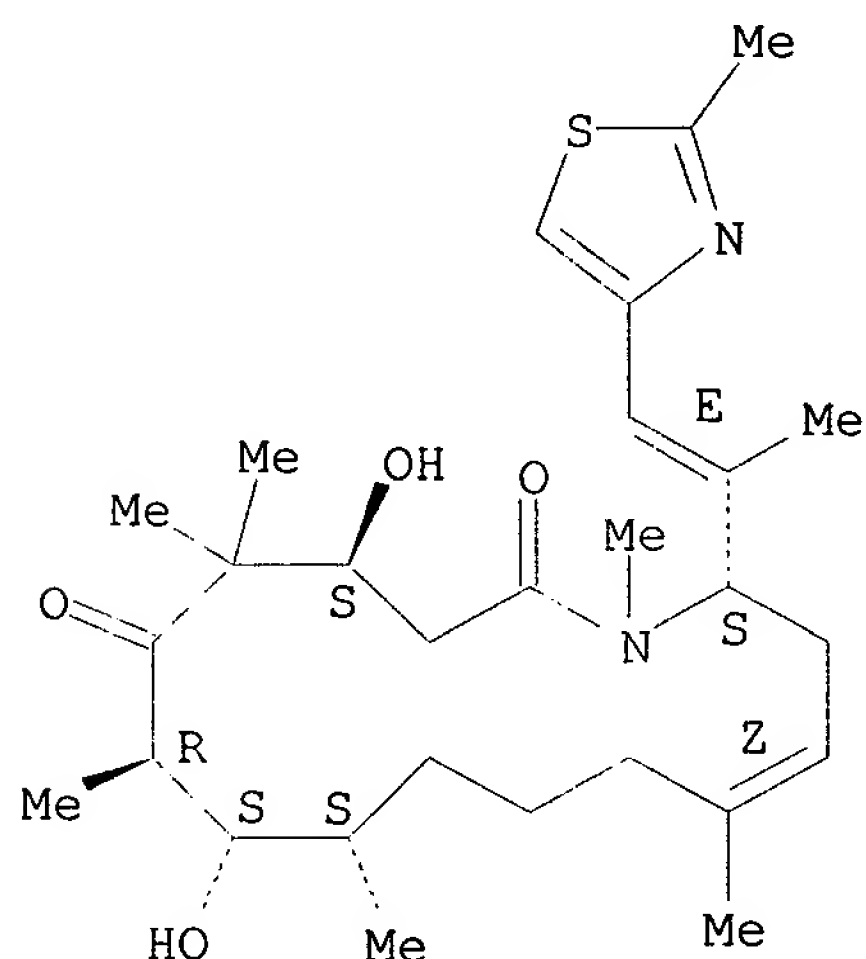
Double bond geometry as shown.



RN 219989-91-0 CAPLUS

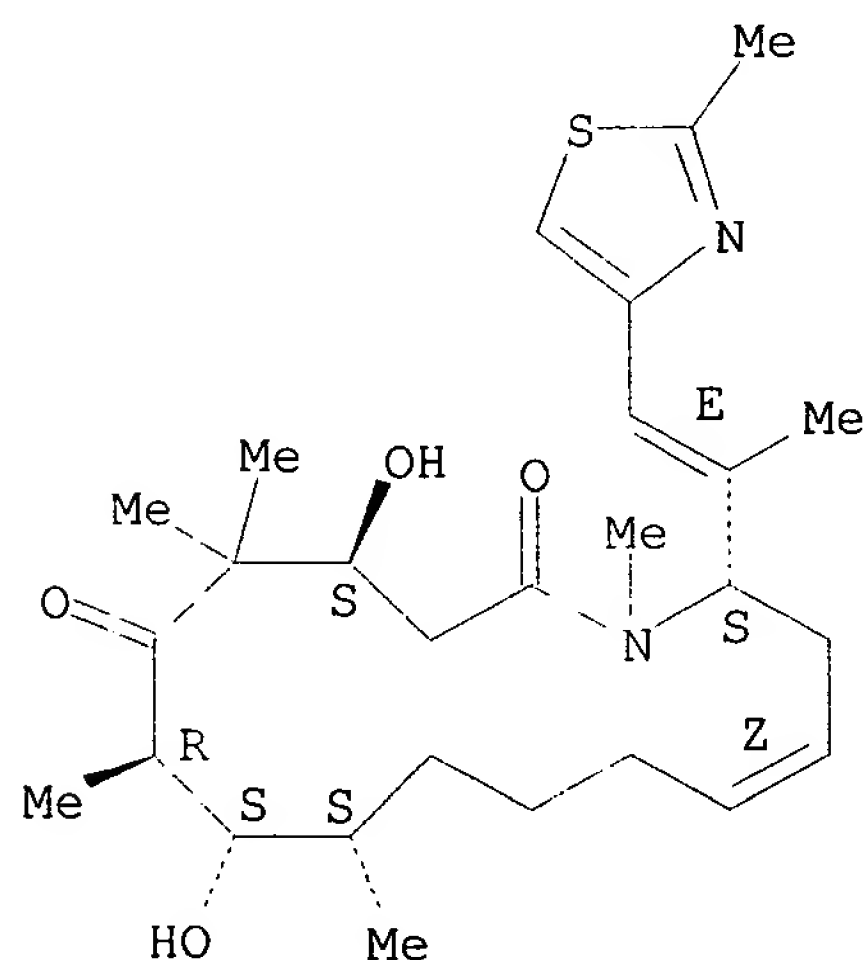
CN Azacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-1,5,5,7,9,13-hexamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



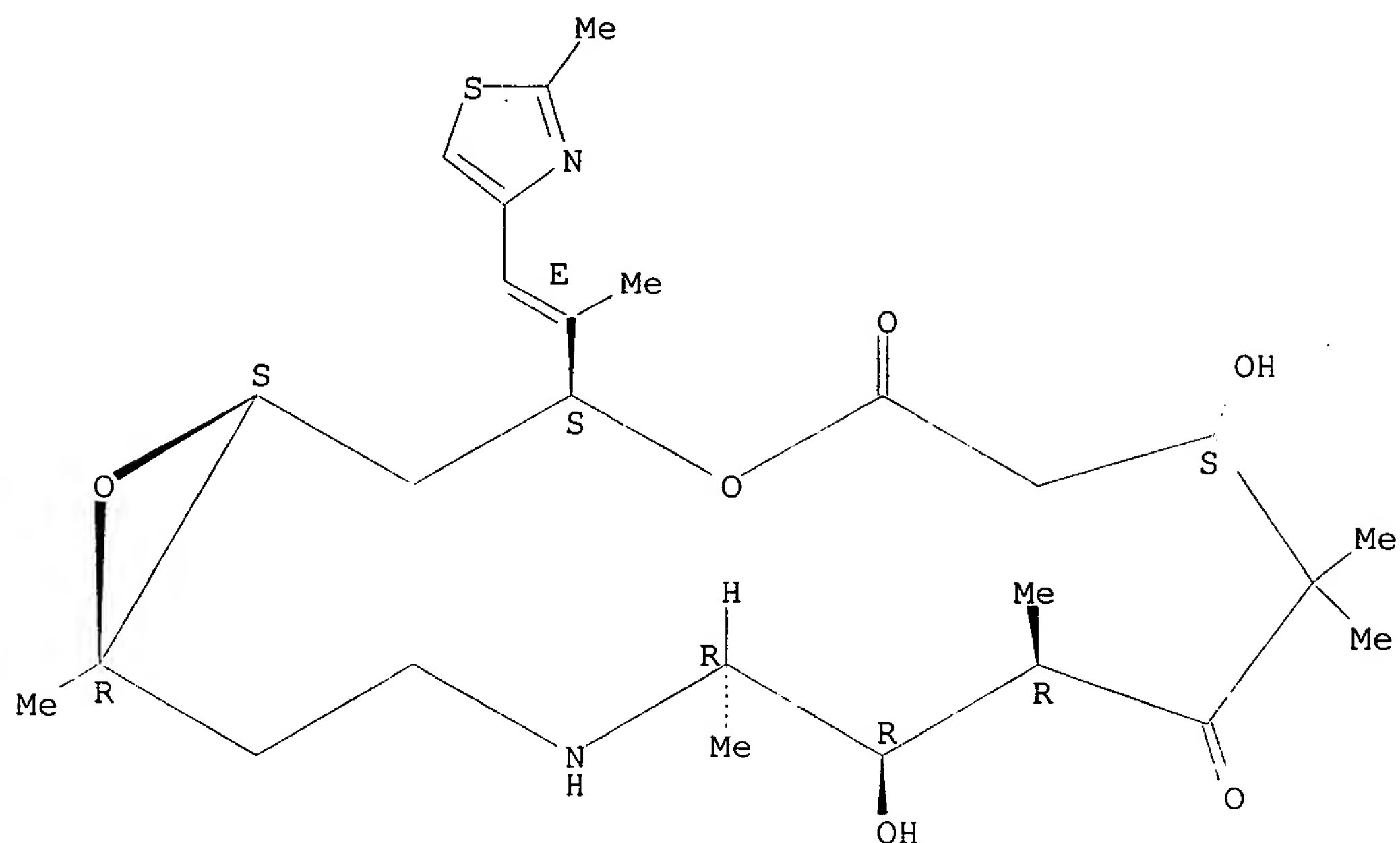
RN 219989-92-1 CAPLUS
CN Azacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-1,5,5,7,9-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



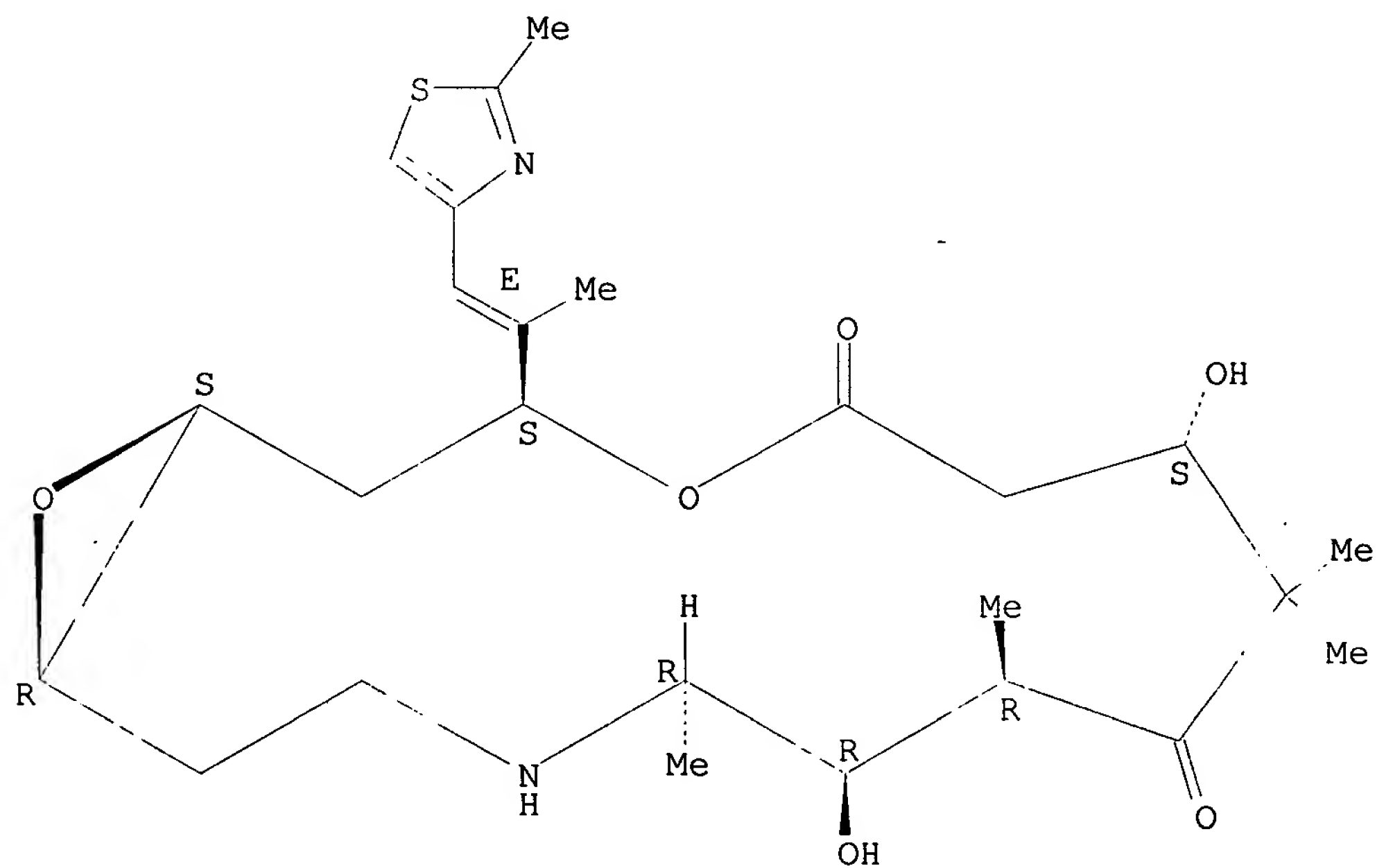
RN 219989-93-2 CAPLUS
CN 4,17-Dioxa-13-azabicyclo[14.1.0]heptadecane-5,9-dione,
7,11-dihydroxy-8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11R,12R,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-94-3 CAPLUS
CN 4,17-Dioxo-13-azabicyclo[14.1.0]heptadecane-5,9-dione,
7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11R,12R,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

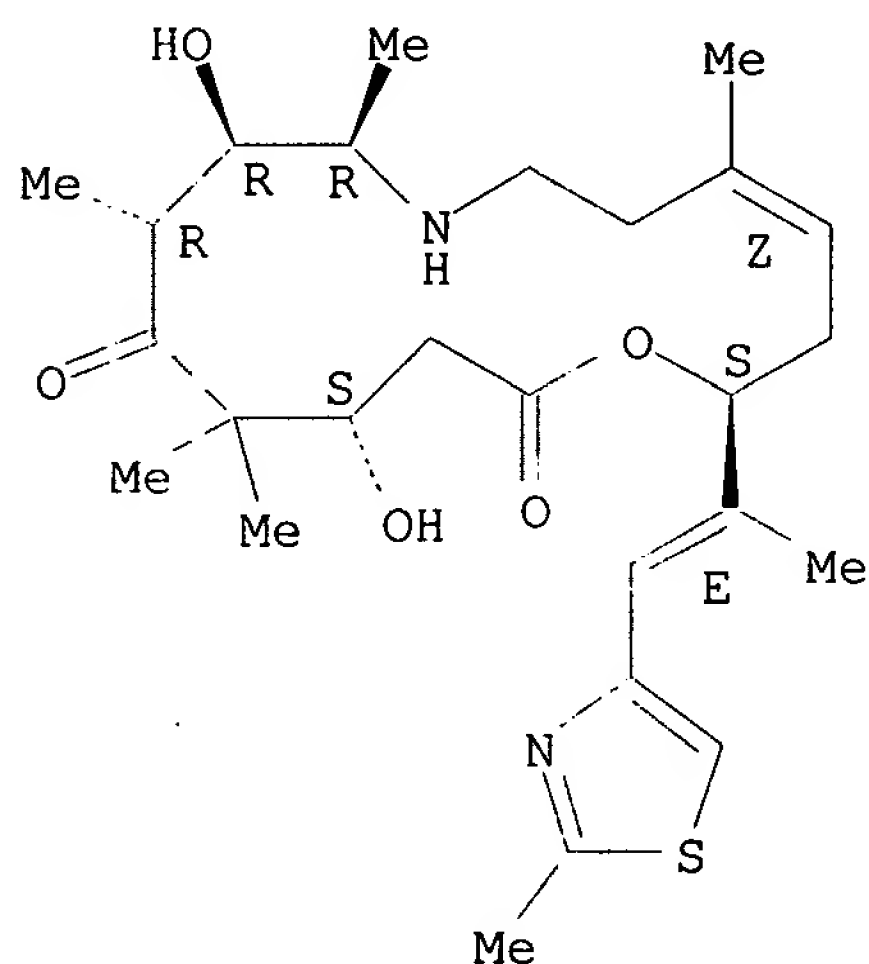


RN 219989-95-4 CAPLUS

CN 1-Oxa-8-azacyclohexadec-4-ene-12,16-dione, 10,14-dihydroxy-5,9,11,13,13-pentamethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (2S,4Z,9R,10R,11R,14S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

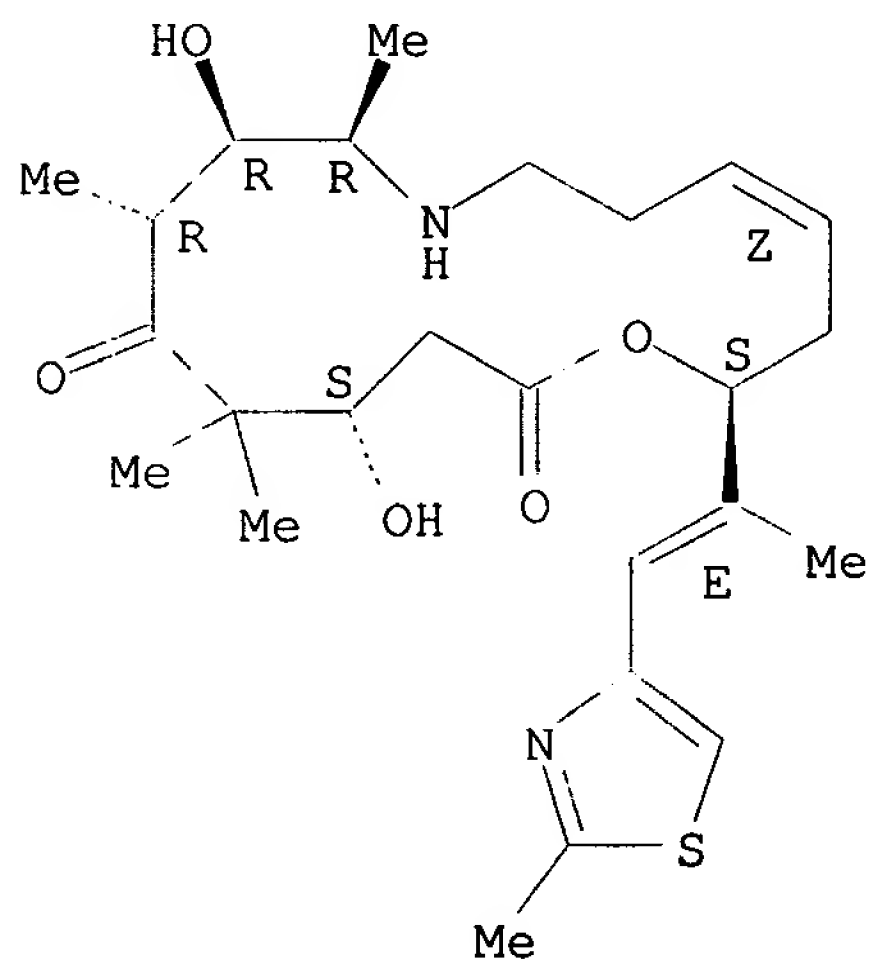


RN 219989-96-5 CAPLUS

CN 1-Oxa-8-azacyclohexadec-4-ene-12,16-dione, 10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (2S,4Z,9R,10R,11R,14S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

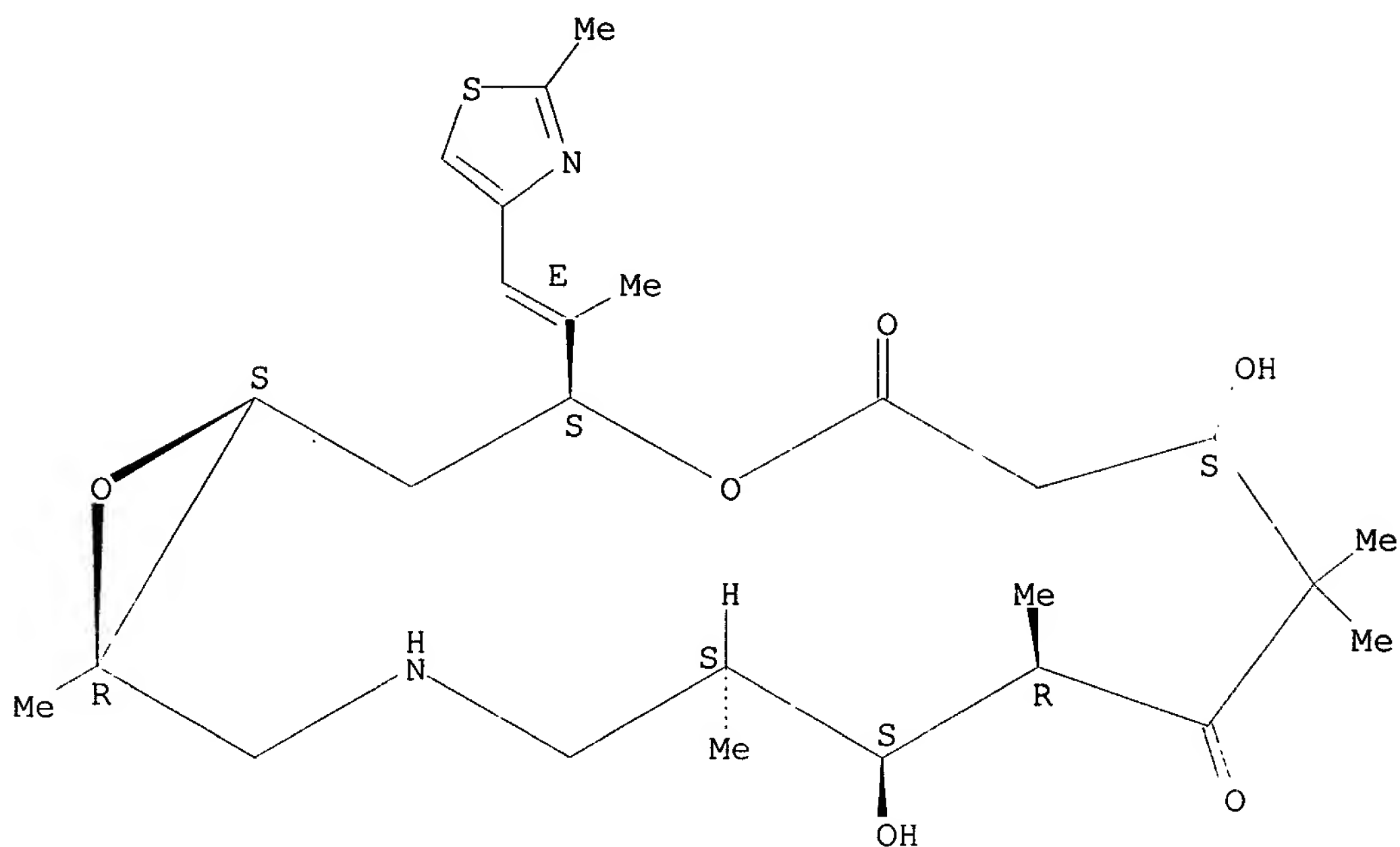
Double bond geometry as shown.



RN 219989-97-6 CAPLUS

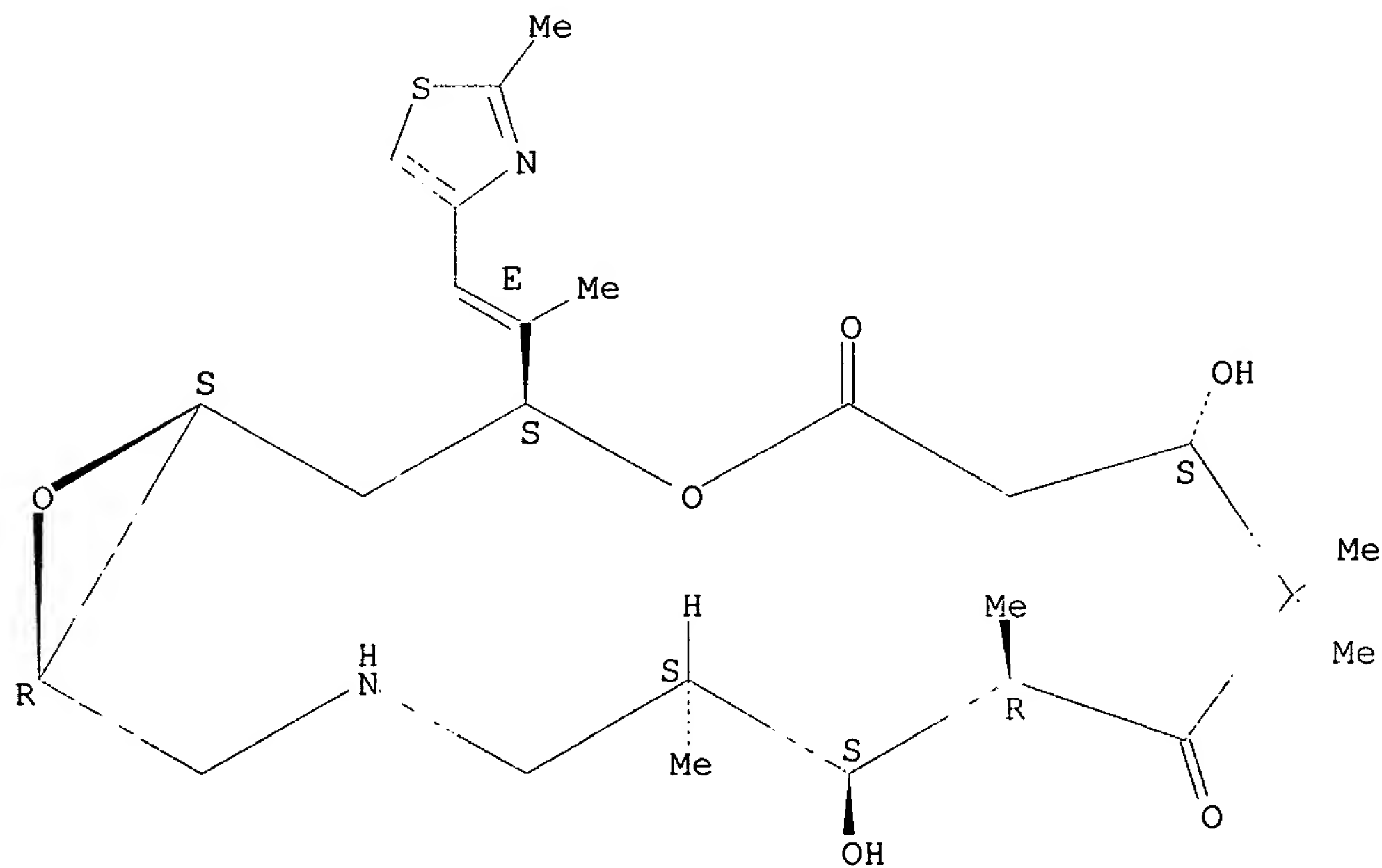
CN 13,17-Dioxa-3-azabicyclo[14.1.0]heptadecane-8,12-dione, 6,10-dihydroxy-1,5,7,9,9-pentamethyl-14-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,5S,6S,7R,10S,14S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN	219989-98-7	CAPLUS
CN	13,17-Dioxa-3-azabicyclo[14.1.0]heptadecane-8,12-dione, 6,10-dihydroxy-5,7,9,9-tetramethyl-14-[(1E)-1-methyl-2-(2-methyl-4- thiazolyl)ethenyl]-, (1R,5S,6S,7R,10S,14S,16S)- (9CI) (CA INDEX NAME)	

Absolute stereochemistry.
Double bond geometry as shown.

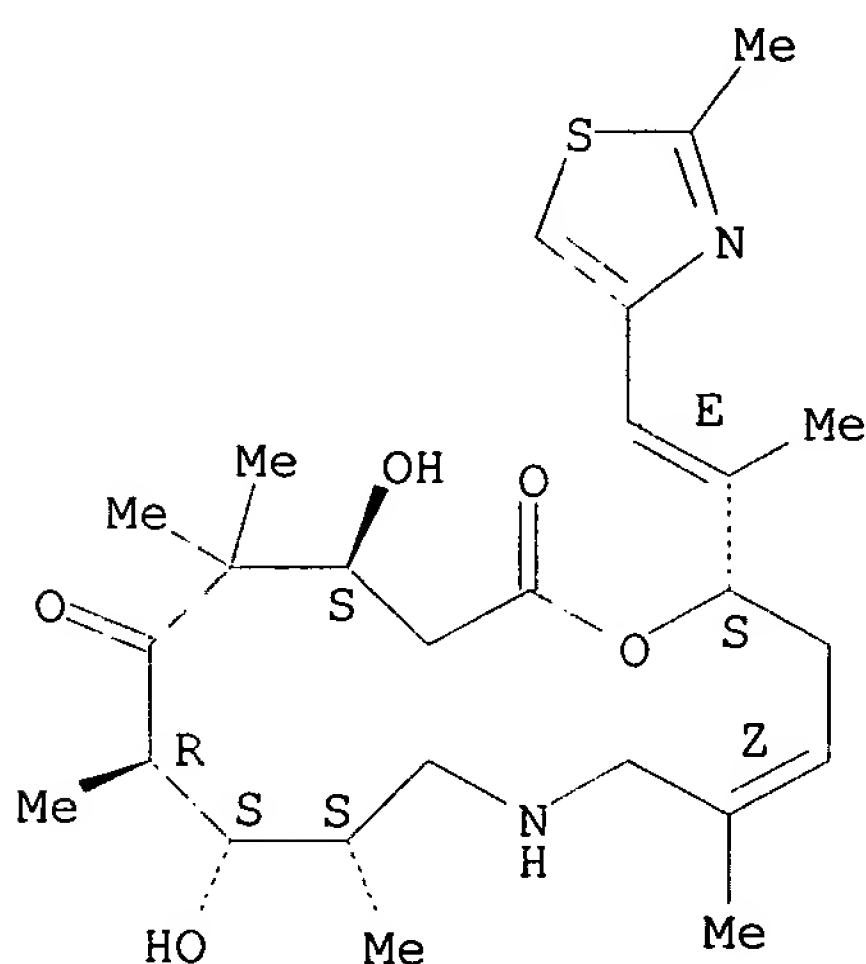


RN 219989-99-8 CAPLUS

CN 1-Oxa-7-azacyclohexadec-4-ene-12,16-dione, 10,14-dihydroxy-5,9,11,13,13-pentamethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (2S,4Z,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

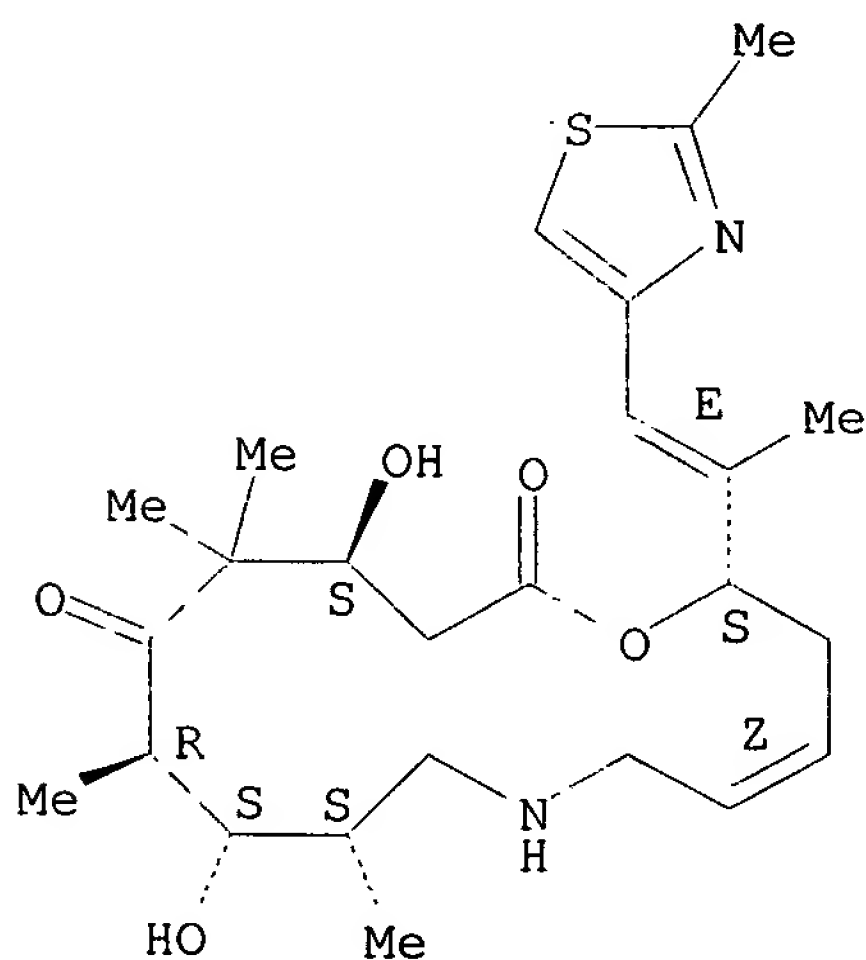


RN 219990-00-8 CAPLUS

CN 1-Oxa-7-azacyclohexadec-4-ene-12,16-dione, 10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (2S,4Z,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

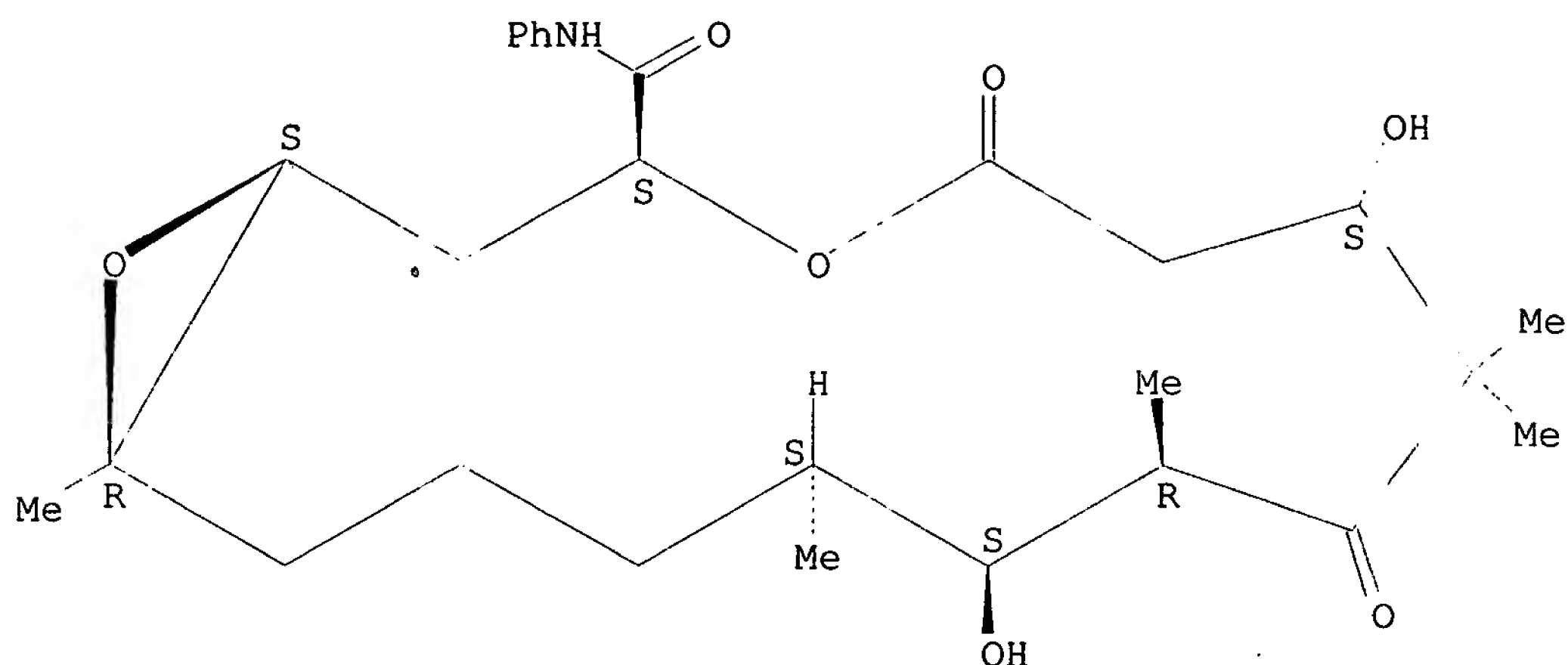
Double bond geometry as shown.



RN 219990-01-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-3-carboxamide, 7,11-dihydroxy-8,8,10,12,16-pentamethyl-5,9-dioxo-N-phenyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

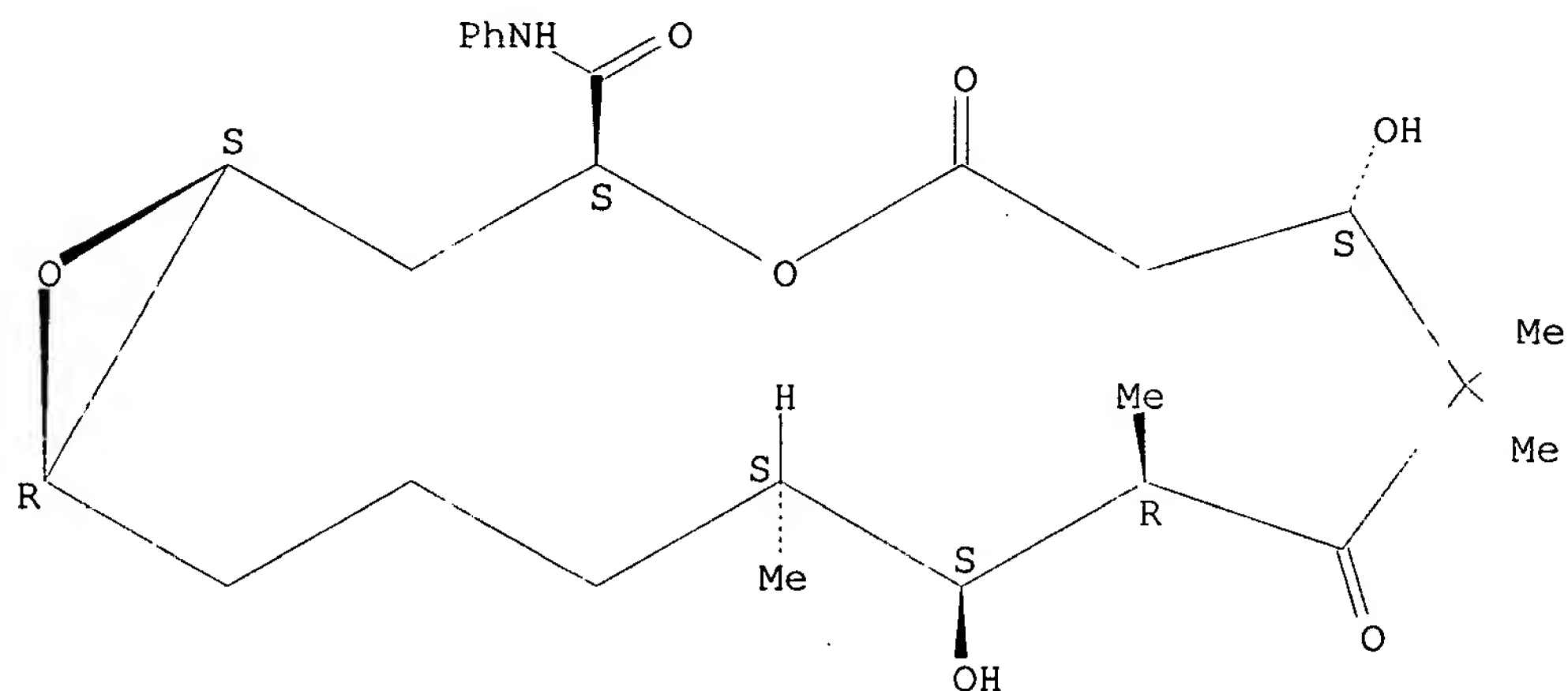
Absolute stereochemistry.



RN 219990-02-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-3-carboxamide, 7,11-dihydroxy-8,8,10,12-tetramethyl-5,9-dioxo-N-phenyl-, (1S,3S,7S,10R,11S,12S,16R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

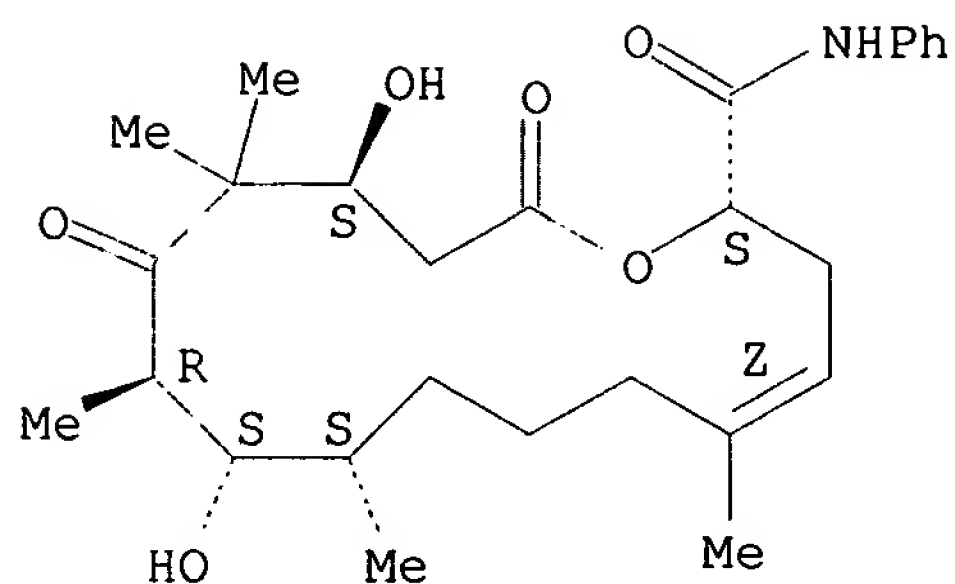


RN 219990-03-1 CAPLUS

CN Oxacyclohexadec-4-ene-2-carboxamide, 10,14-dihydroxy-5,9,11,13,13-pentamethyl-12,16-dioxo-N-phenyl-, (2S,4Z,9S,10S,11R,14S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

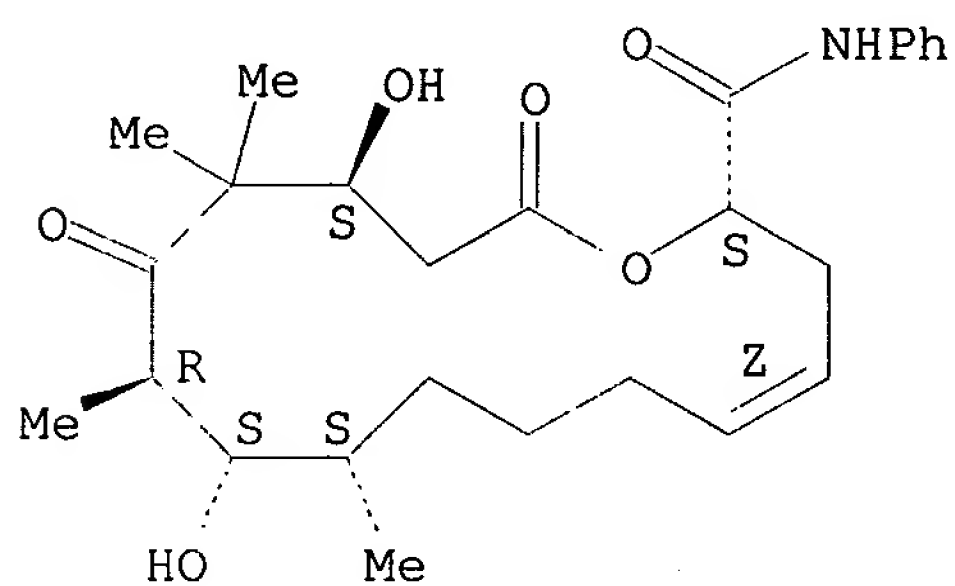
Double bond geometry as shown.



RN 219990-04-2 CAPLUS

CN Oxacyclohexadec-4-ene-2-carboxamide, 10,14-dihydroxy-9,11,13,13-tetramethyl-12,16-dioxo-N-phenyl-, (2S,4Z,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

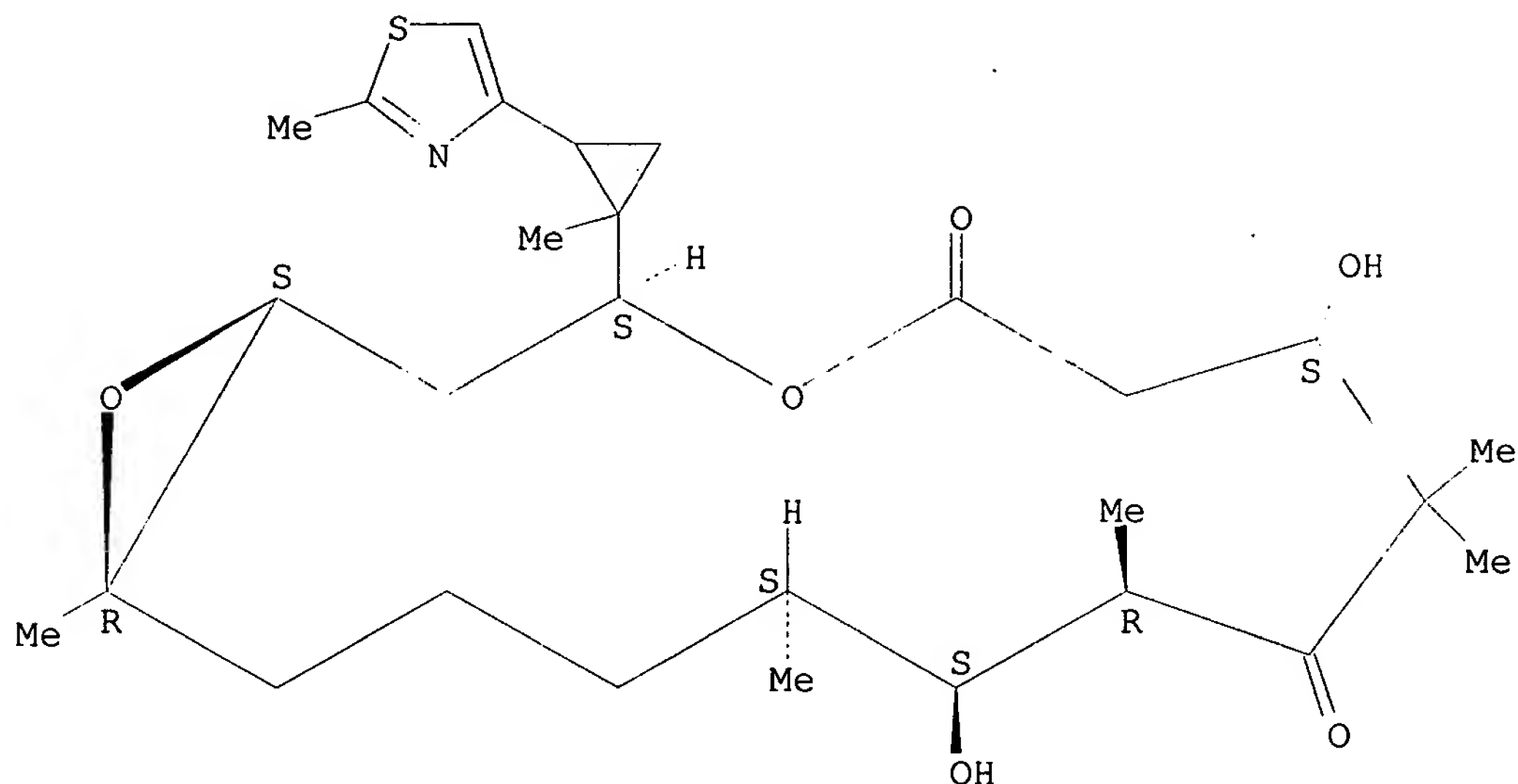
Absolute stereochemistry.
Double bond geometry as shown.



RN 220009-36-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)cyclopropyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

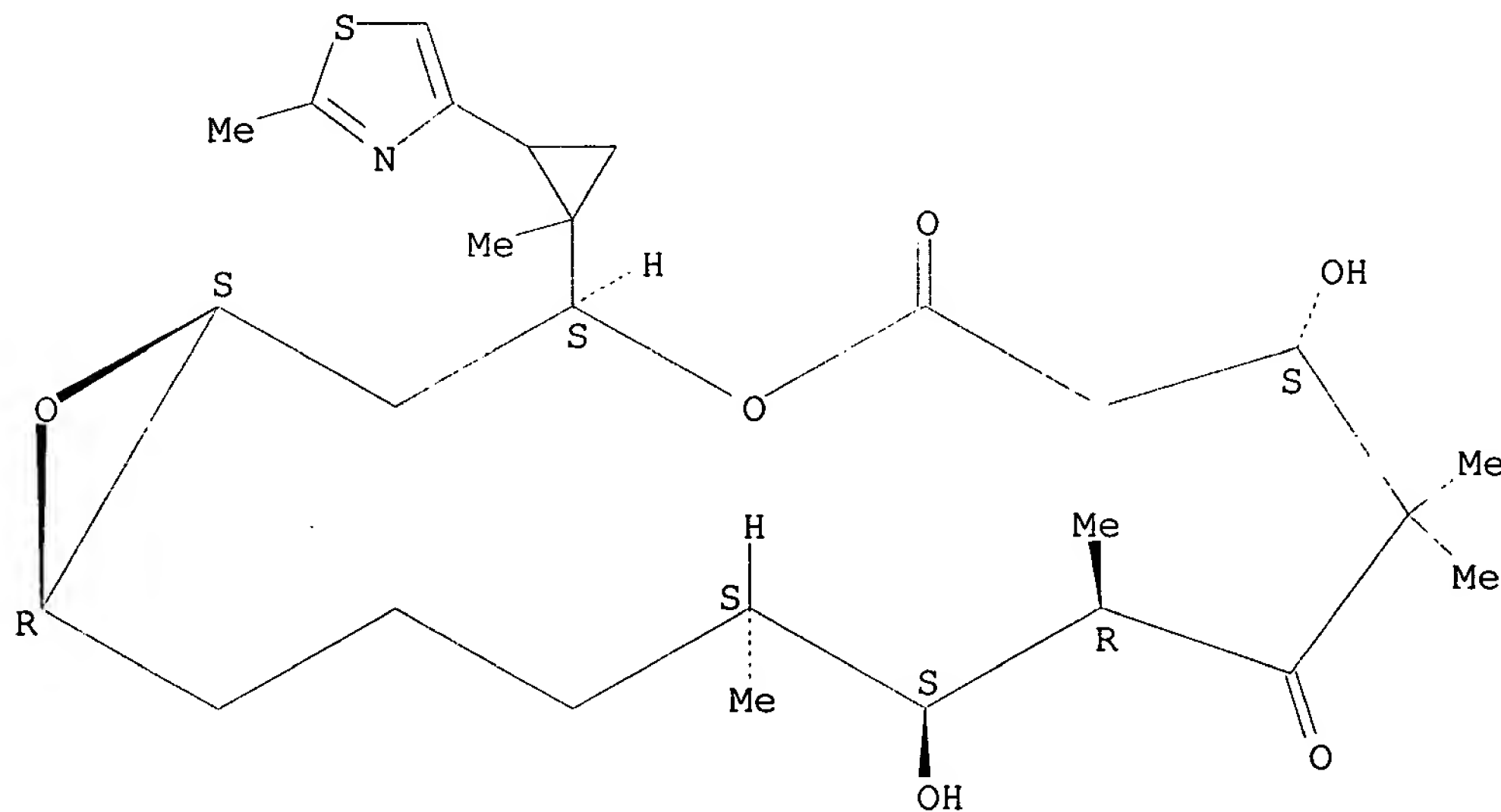
Absolute stereochemistry.



RN 220009-41-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)cyclopropyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 208518-52-9P, Epothilone F 219990-27-9P
219990-35-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(syntheses of epothilone analogs and intermediates for use in
treatment

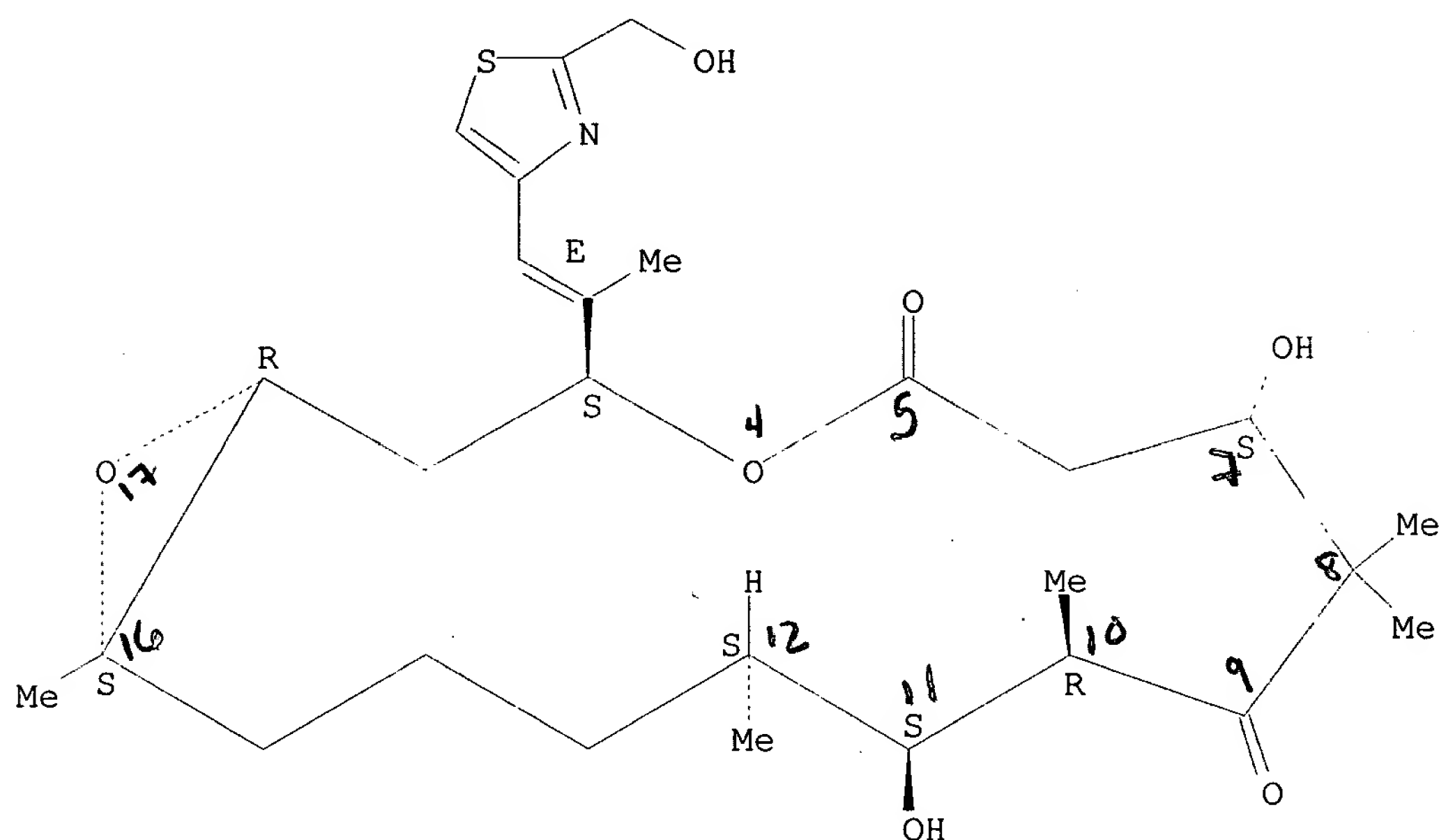
of hyperproliferative cellular disease)

RN 208518-52-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3-[(1E)-2-[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-8,8,10,12,16-pentamethyl-

, (1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

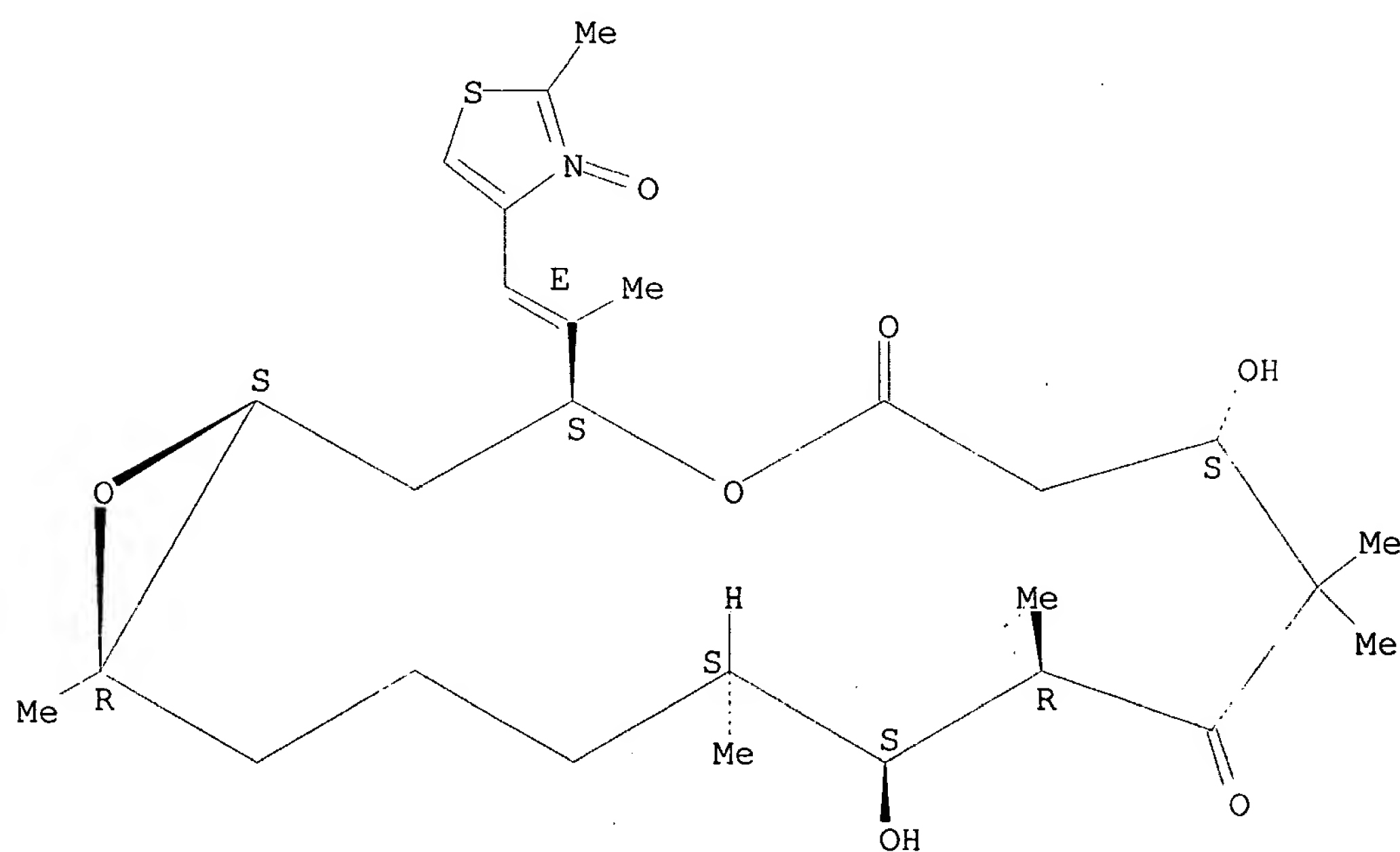
Absolute stereochemistry.
Double bond geometry as shown.



RN 219990-27-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-3-oxido-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

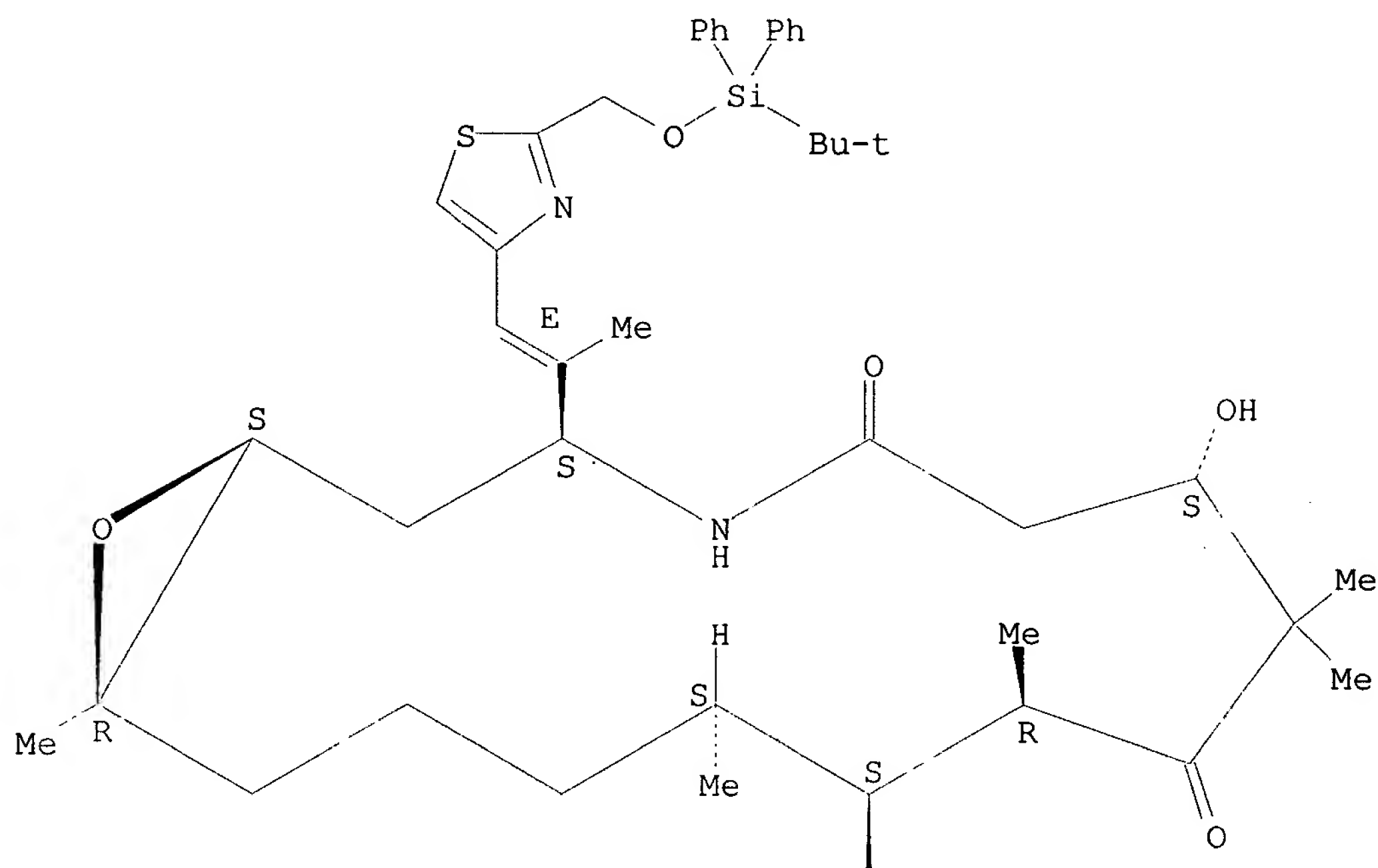


RN 219990-35-9 CAPLUS

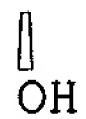
CN 17-Oxa-4-azabicyclo[14.1.0]heptadecane-5,9-dione, 3-[(1E)-2-[2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-4-thiazolyl]-1-methylethenyl]-7,11-dihydroxy-8,8,10,12,16-pentamethyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



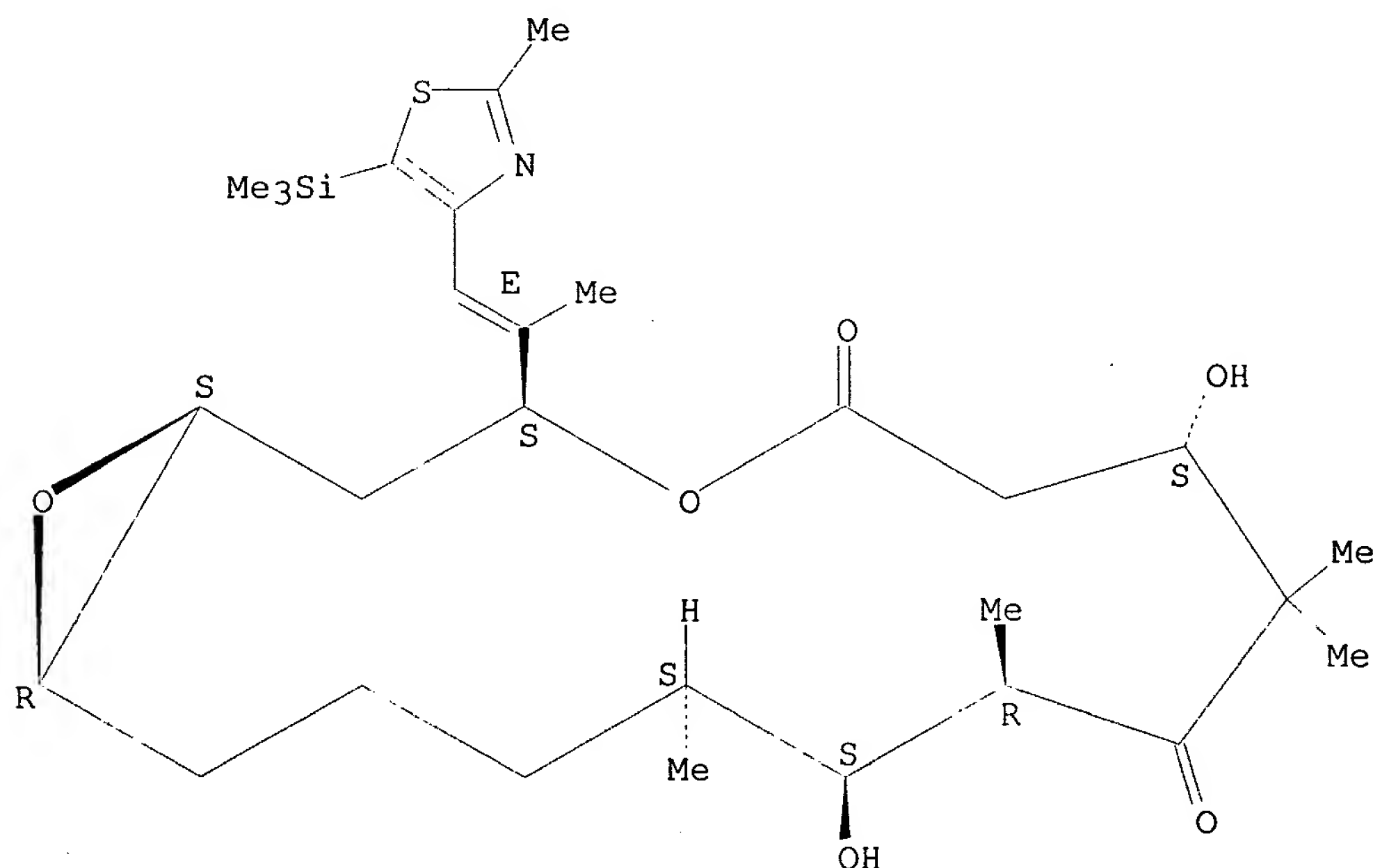
PAGE 2-A



=> D BIB ABS HITSTR 4

L20 ANSWER 4 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1999:50085 CAPLUS
DN 130:168136
TI Substitutions at the thiazole moiety of epothilone
AU Sefkow, Michael; Hofle, Gerhard
CS Gesellschaft fur Biotechnologische Forschung mbH, Abt. Naturstoffchemie,
Braunschweig, D-38124, Germany
SO Heterocycles (1998), 48(12), 2485-2488
CODEN: HTCYAM; ISSN: 0385-5414
PB Japan Institute of Heterocyclic Chemistry
DT Journal
LA English
OS CASREACT 130:168136
AB Epothilone A is metalated at low temp. with an excess of butyllithium
preferentially at C19 of the thiazole moiety. After addn. of various
carbon and heteroatom electrophiles the corresponding substitution
products were obtained. Some of them have similar cytotoxic activity
than
the starting material.
IT 220283-93-2P
RL: BAC (Biological activity or effector, except adverse); RCT
(Reactant);
SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(electrophilic substitutions at the thiazole moiety of epothilone A)
RN 220283-93-2 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-
tetramethyl-3-[(1E)-1-methyl-2-[2-methyl-5-(trimethylsilyl)-4-
thiazolyl]ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT 212321-24-9P 212321-27-2P 220283-83-0P
220283-84-1P 220283-85-2P 220283-87-4P
220283-88-5P 220283-89-6P 220283-90-9P
220283-91-0P 220283-92-1P 220283-94-3P
220283-95-4P 220283-96-5P 220283-97-6P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(electrophilic substitutions at the thiazole moiety of epothilone A)

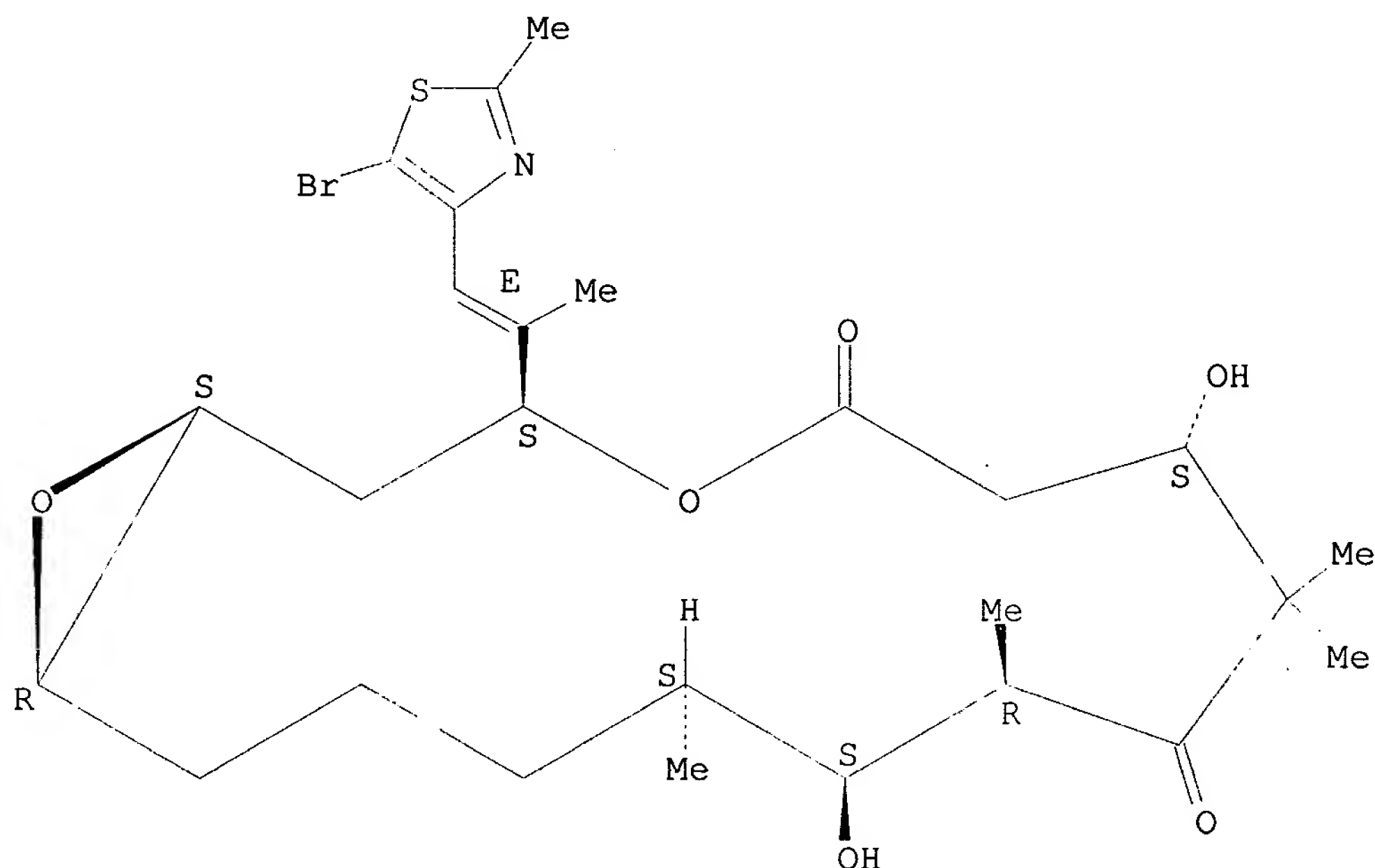
RN 212321-24-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 3-[(1E)-2-(5-bromo-2-

methyl-4-thiazolyl)-1-methylethenyl]-7,11-dihydroxy-8,8,10,12-tetramethyl-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



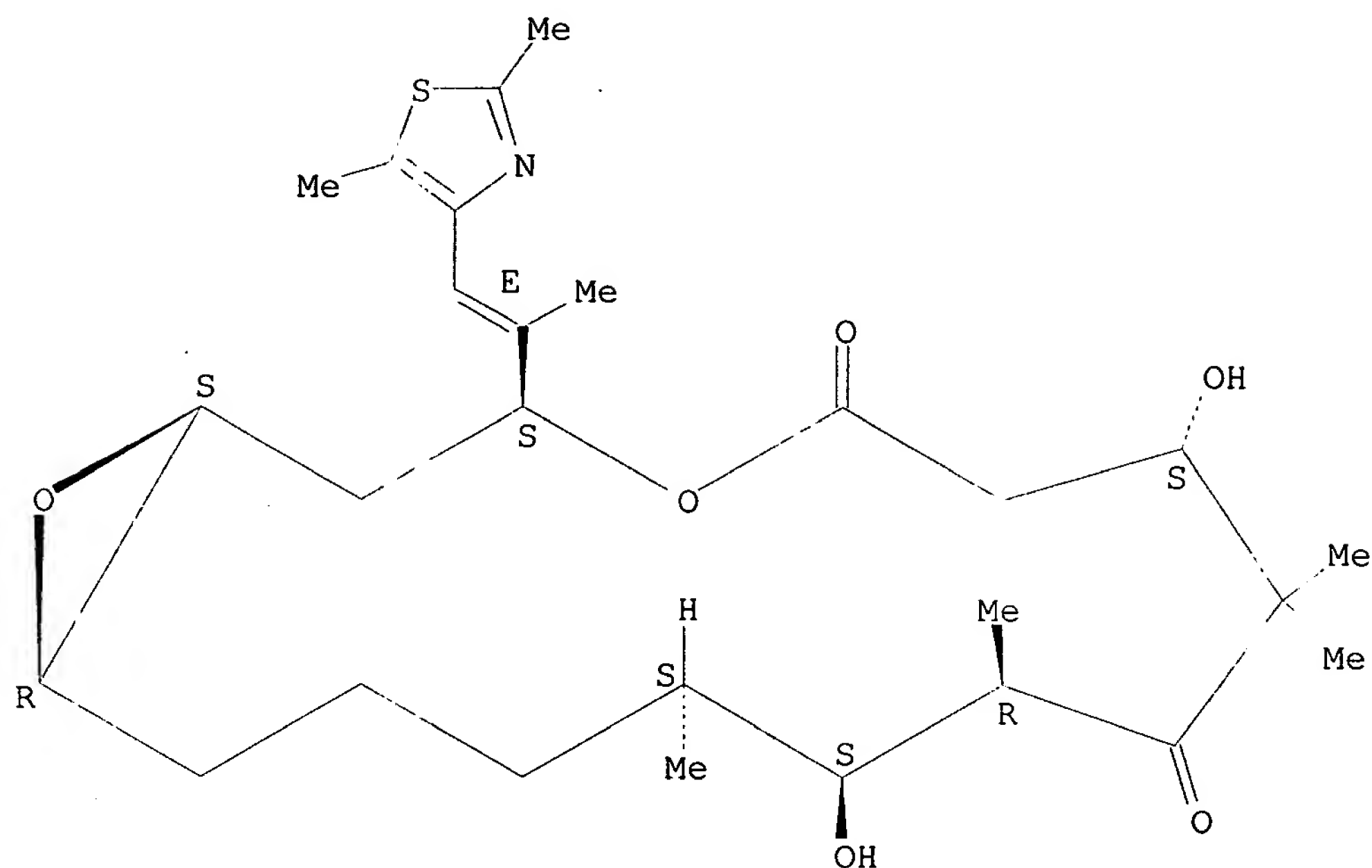
RN 212321-27-2 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione,

3-[(1E)-2-(2,5-dimethyl-4-thiazolyl)-1-methylethenyl]-7,11-dihydroxy-8,8,10,12-tetramethyl-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

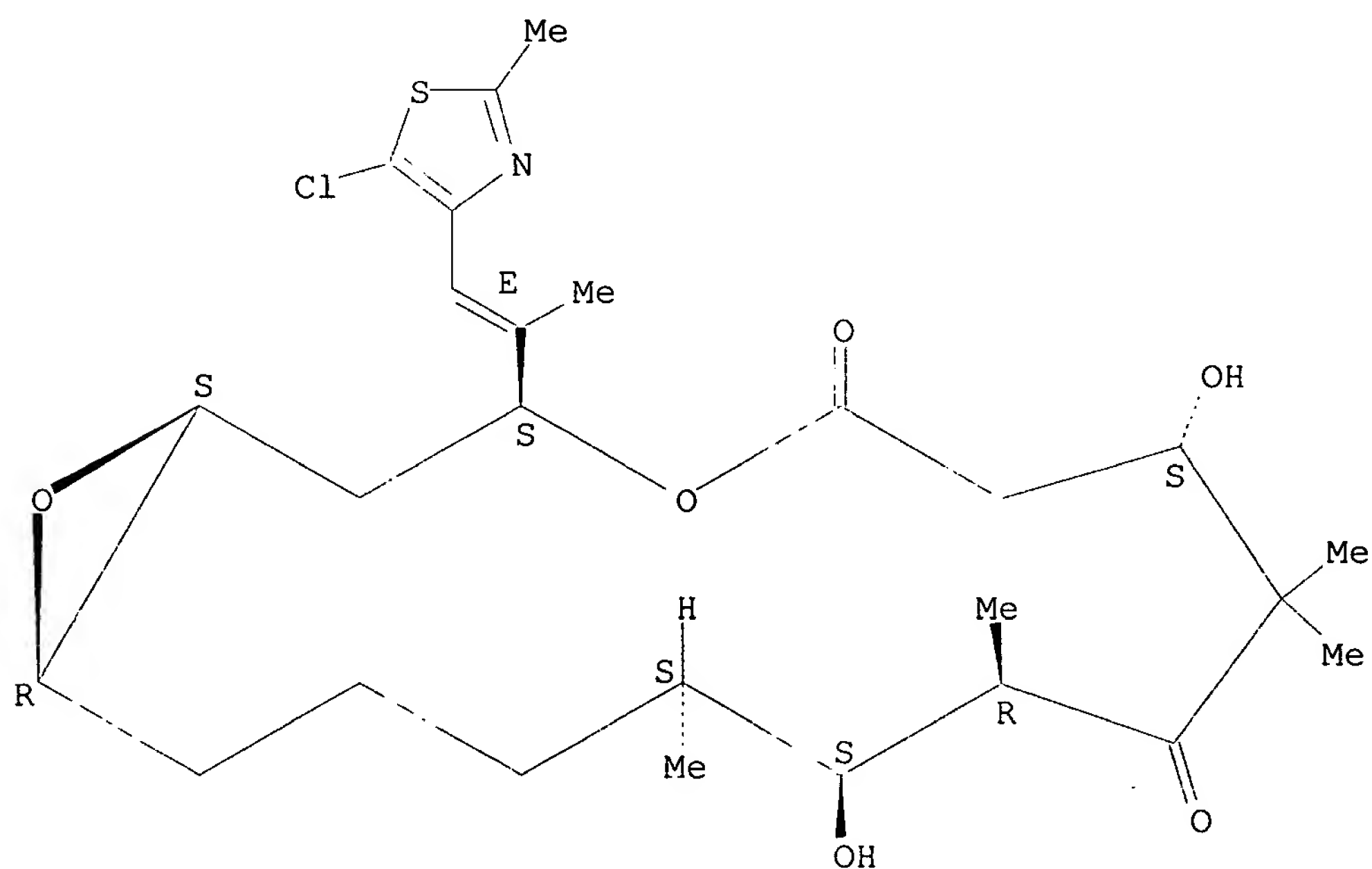
Double bond geometry as shown.



RN 220283-83-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 3-[(1E)-2-(5-chloro-2-methyl-4-thiazolyl)-1-methylethenyl]-7,11-dihydroxy-8,8,10,12-tetramethyl-, (1S,3S,7S,10R,11S,12S,16R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



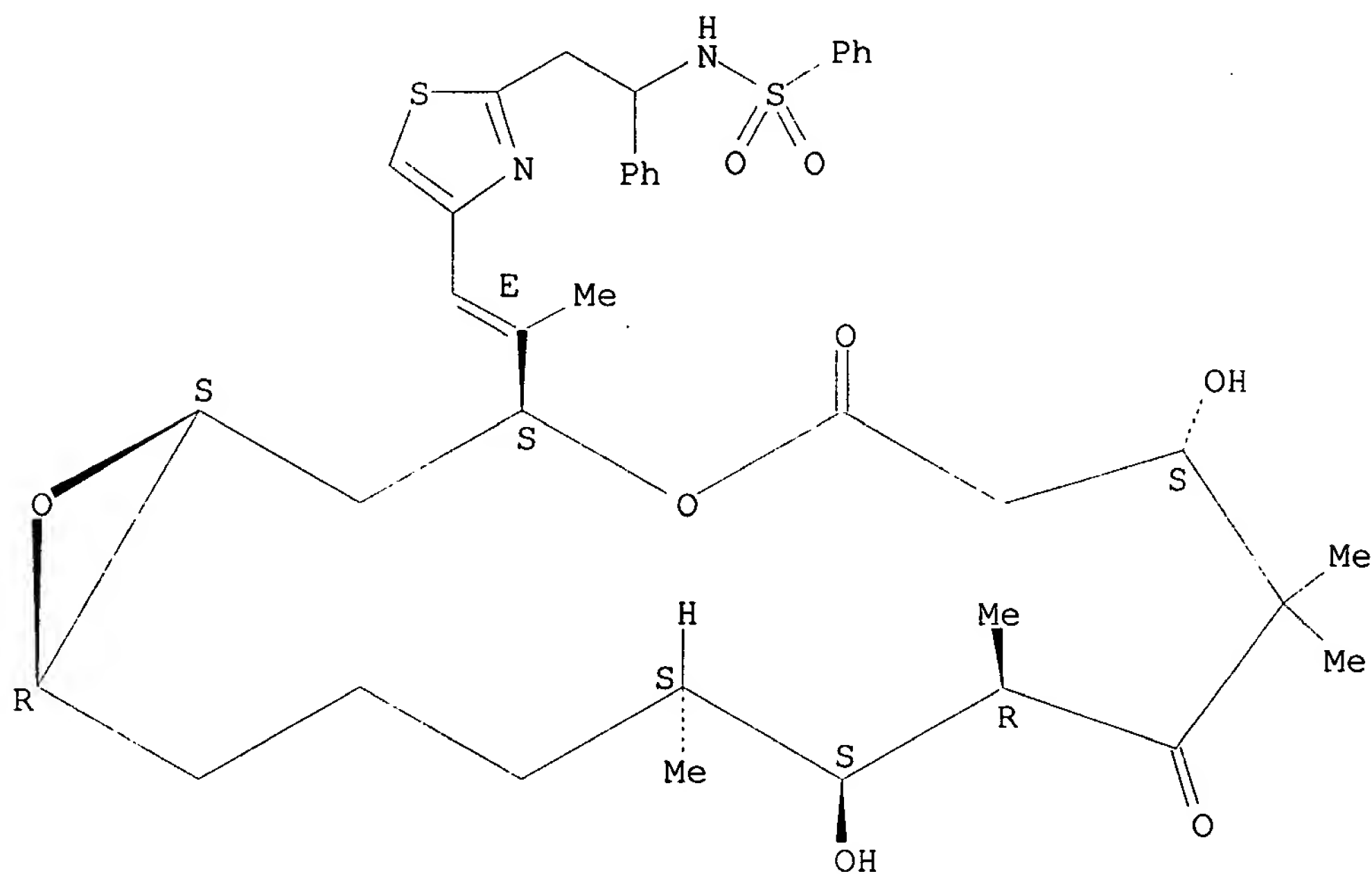
RN 220283-84-1 CAPLUS

CN Benzenesulfonamide, N-[2-[4-[(1E)-2-[(1S,3S,7S,10R,11S,12S,16R)-7,11-dihydroxy-8,8,10,12-tetramethyl-5,9-dioxo-4,17-

dioxabicyclo[14.1.0]heptadec-3-yl]-1-propenyl]-2-thiazolyl]-1-phenylethyl]-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



RN 220283-85-2 CAPLUS

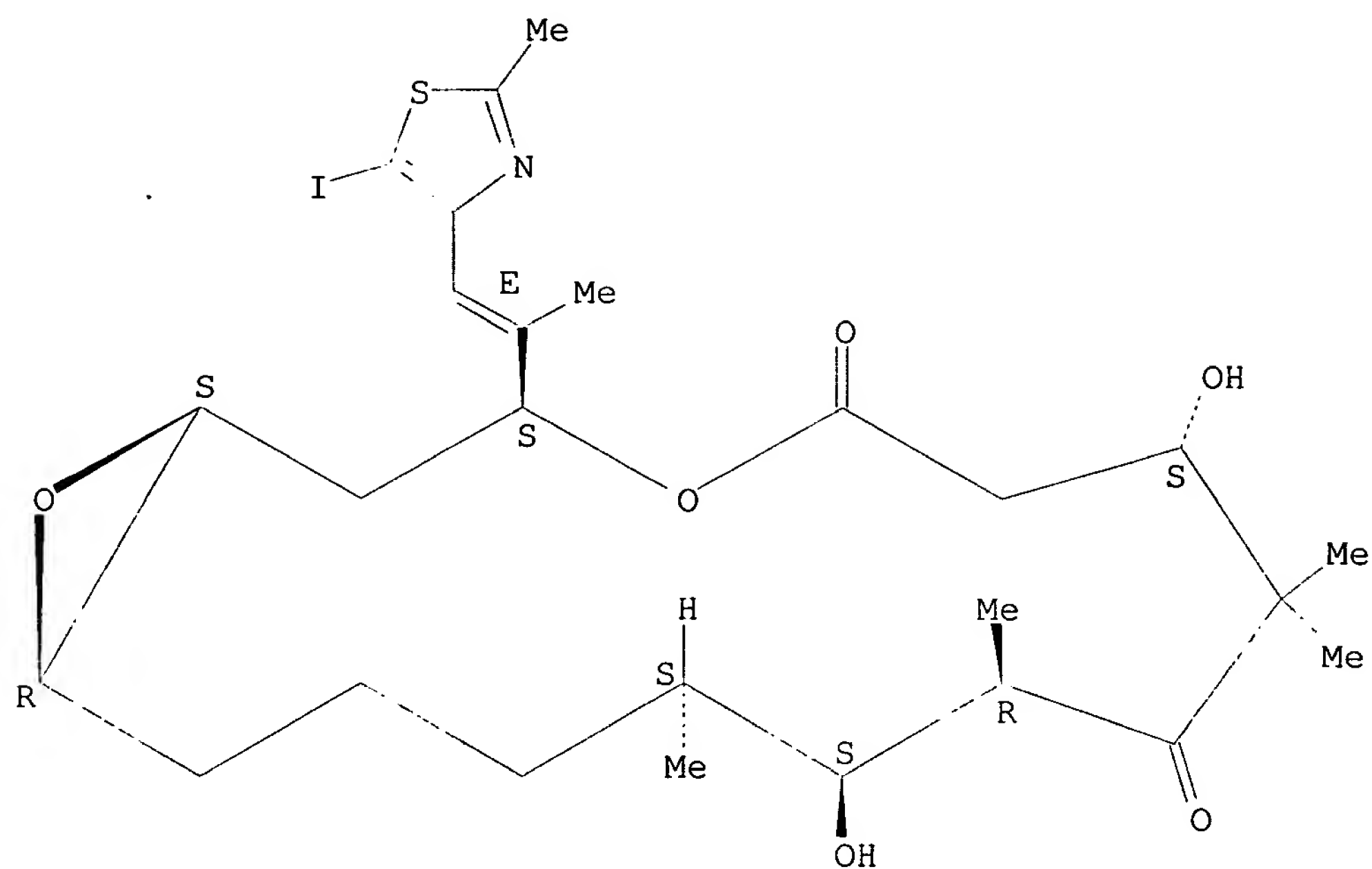
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione,

11-(benzoyloxy)-7-hydroxy-

8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

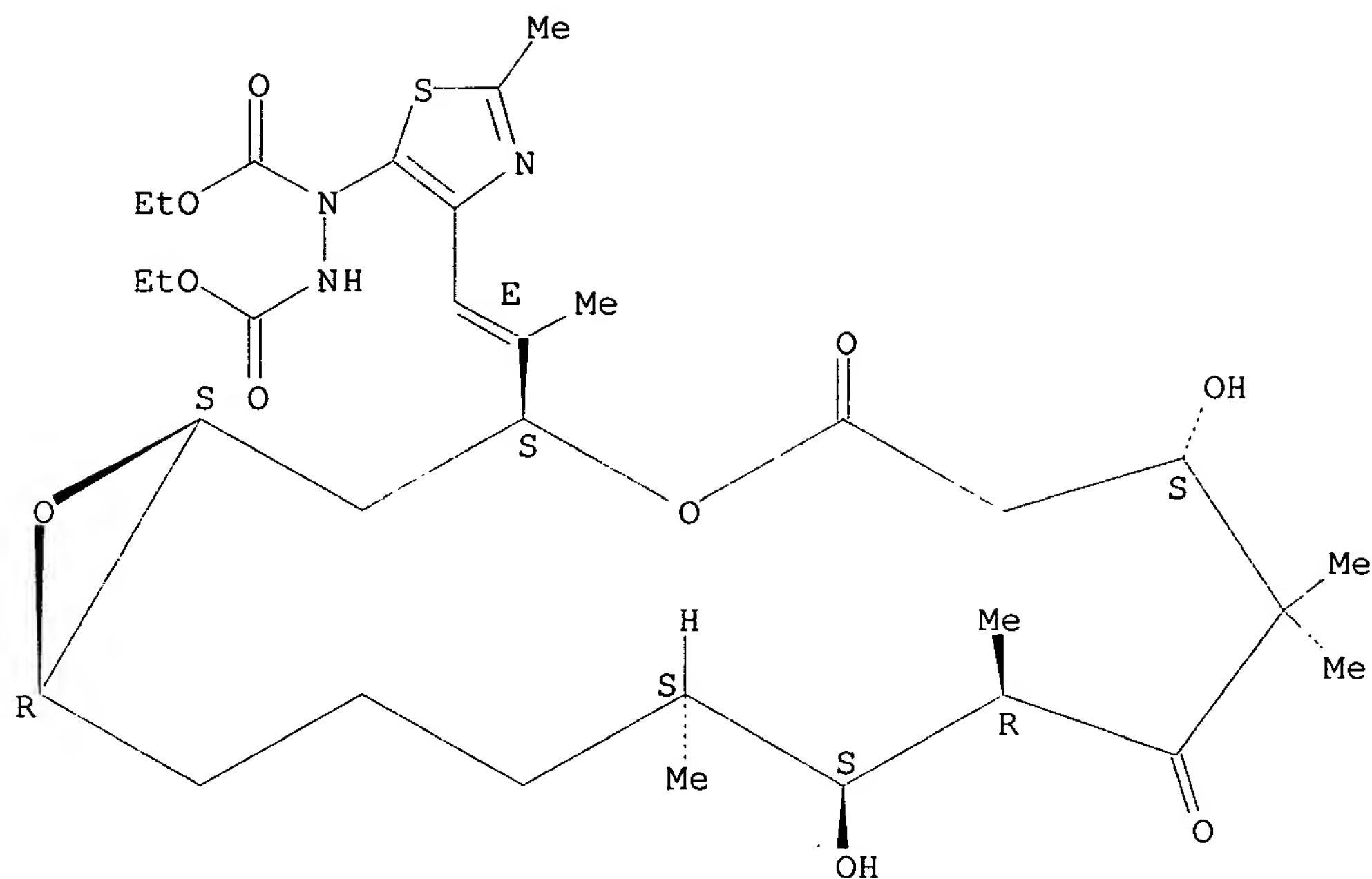


RN 220283-88-5 CAPLUS

CN 1,2-Hydrazinedicarboxylic acid, 1-[4-[(1E)-2-[(1S,3S,7S,10R,11S,12S,16R)-7,11-dihydroxy-8,8,10,12-tetramethyl-5,9-dioxo-4,17-dioxabicyclo[14.1.0]heptadec-3-yl]-1-propenyl]-2-methyl-5-thiazolyl]-, diethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

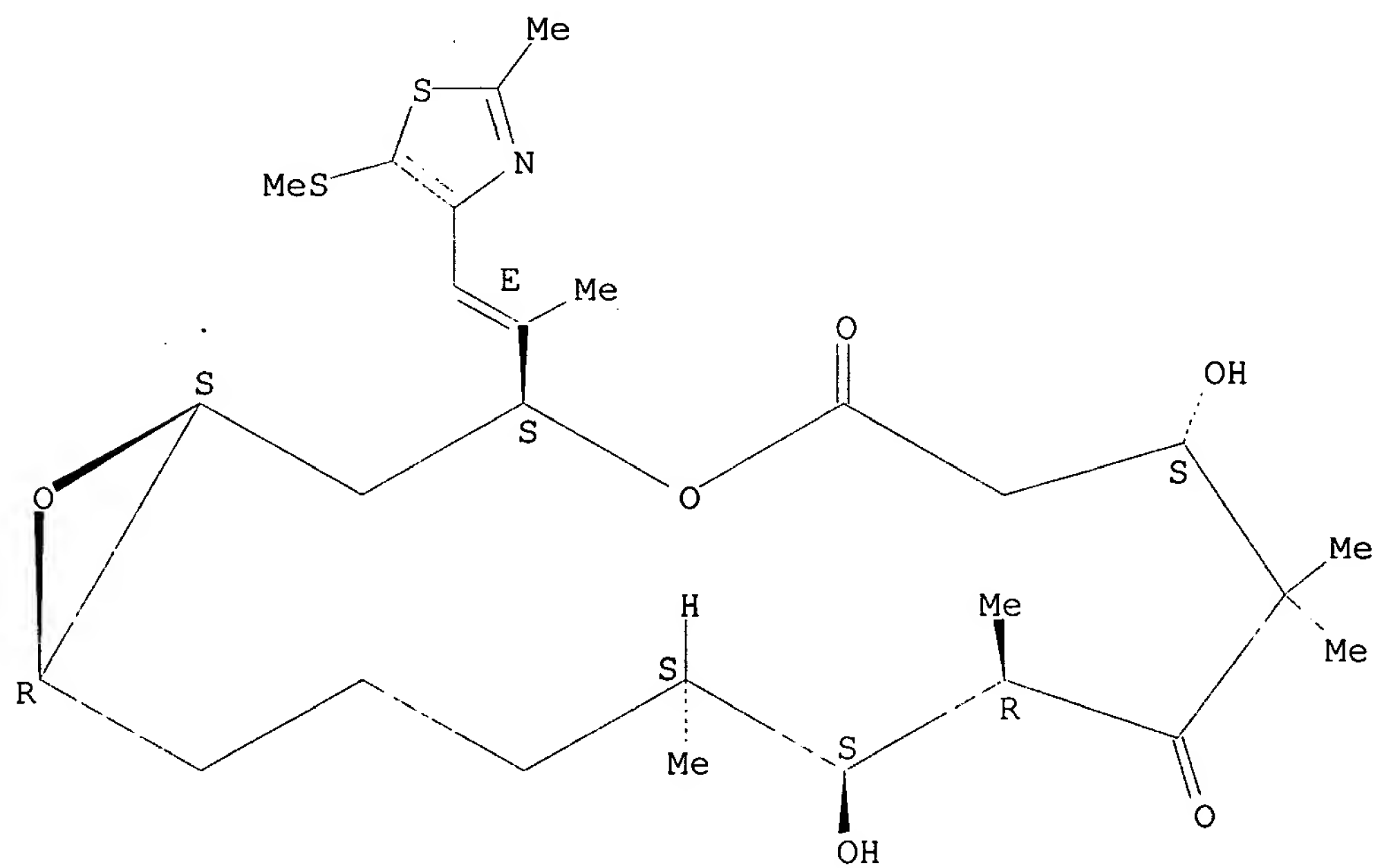
Double bond geometry as shown.



RN 220283-89-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-[2-methyl-5-(methylthio)-4-thiazolyl]ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

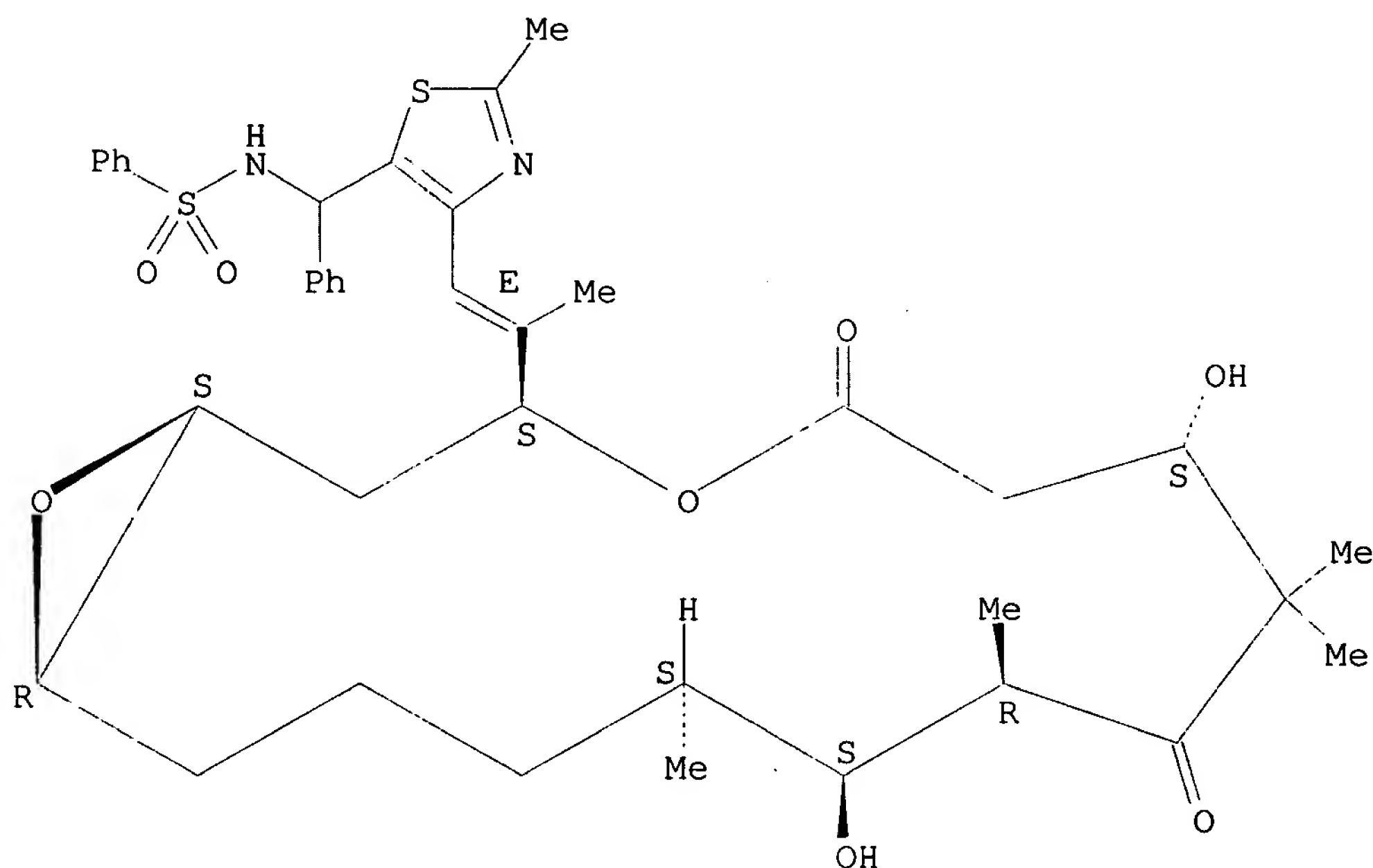
Absolute stereochemistry.
Double bond geometry as shown.



RN 220283-90-9 CAPLUS

CN Benzenesulfonamide, N-[[4-[(1E)-2-[(1S,3S,7S,10R,11S,12S,16R)-7,11-dihydroxy-8,8,10,12-tetramethyl-5,9-dioxo-4,17-dioxabicyclo[14.1.0]heptadec-3-yl]-1-propenyl]-2-methyl-5-thiazolyl]phenylmethyl]- (9CI) (CA INDEX NAME)

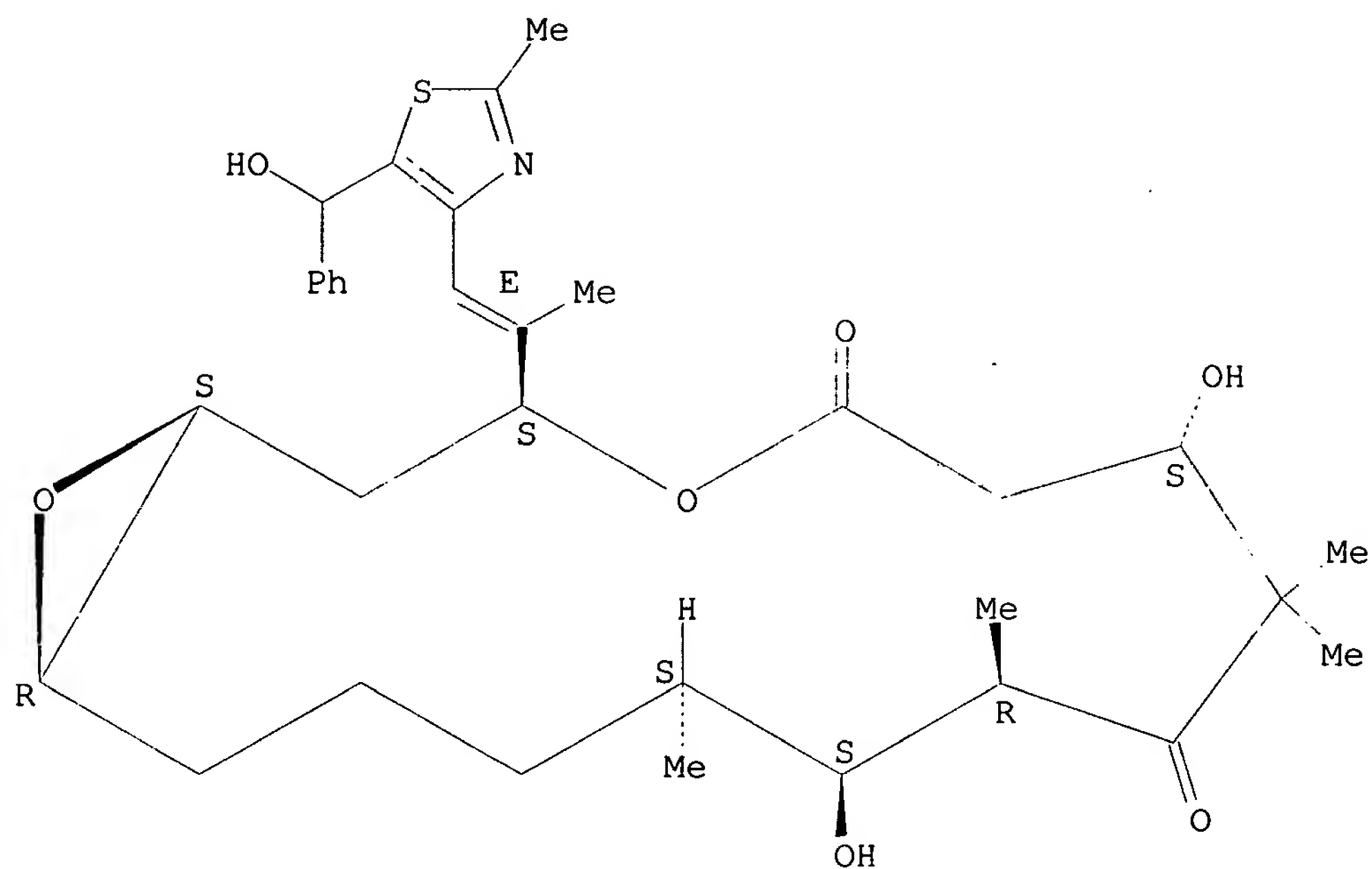
Absolute stereochemistry.
Double bond geometry as shown.



RN 220283-91-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3-[(1E)-2-[5-(hydroxyphenylmethyl)-2-methyl-4-thiazolyl]-1-methylethenyl]-8,8,10,12-tetramethyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

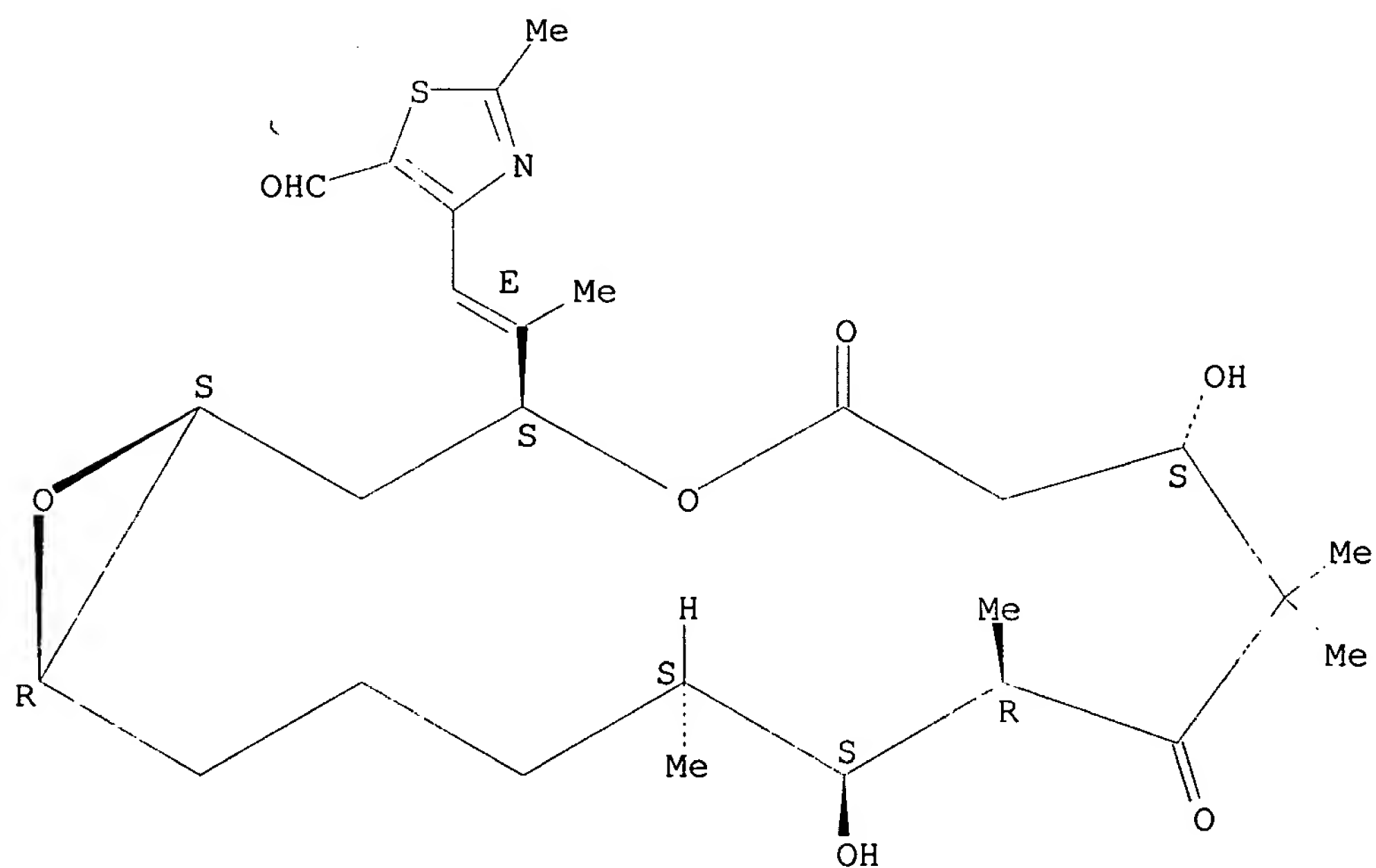
Absolute stereochemistry.
Double bond geometry as shown.



RN 220283-92-1 CAPLUS

CN 5-Thiazolecarboxaldehyde, 4-[(1E)-2-[(1S,3S,7S,10R,11S,12S,16R)-7,11-dihydroxy-8,8,10,12-tetramethyl-5,9-dioxo-4,17-dioxabicyclo[14.1.0]heptadec-3-yl]-1-propenyl]-2-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

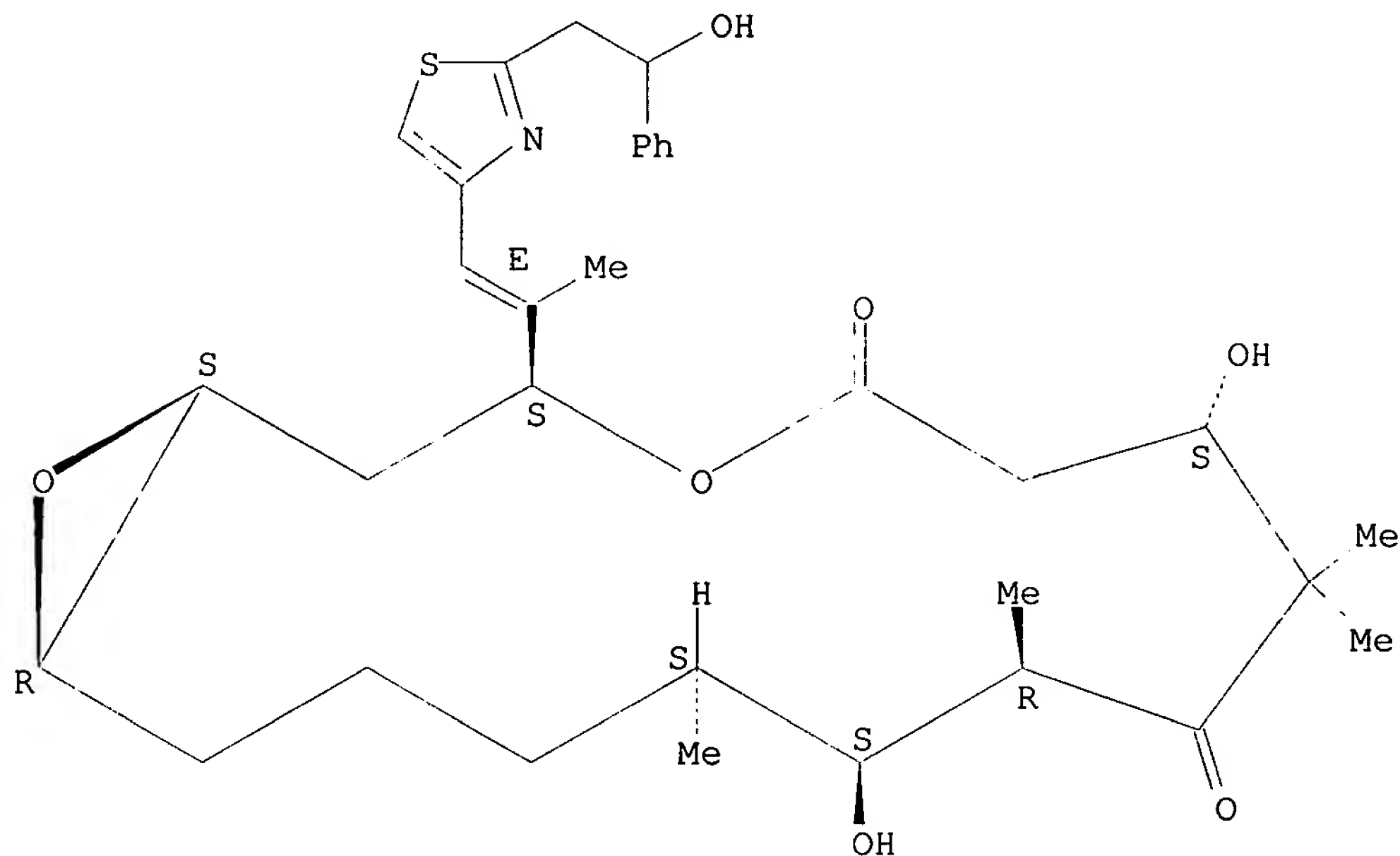


RN 220283-94-3 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3-[(1E)-2-[2-(2-hydroxy-2-phenylethyl)-4-thiazolyl]-1-methylethenyl]-8,8,10,12-tetramethyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

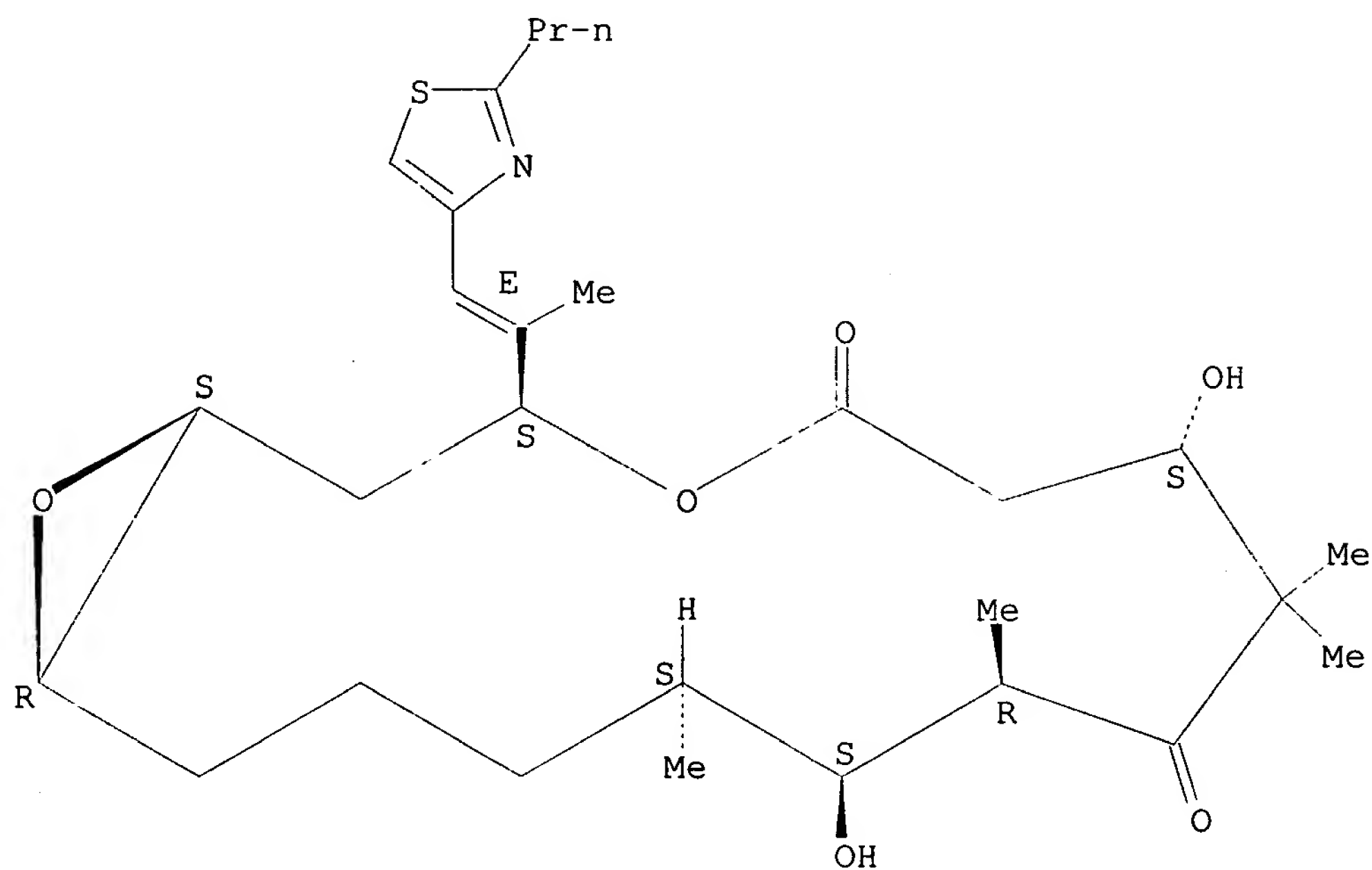


RN 220283-95-4 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-propyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

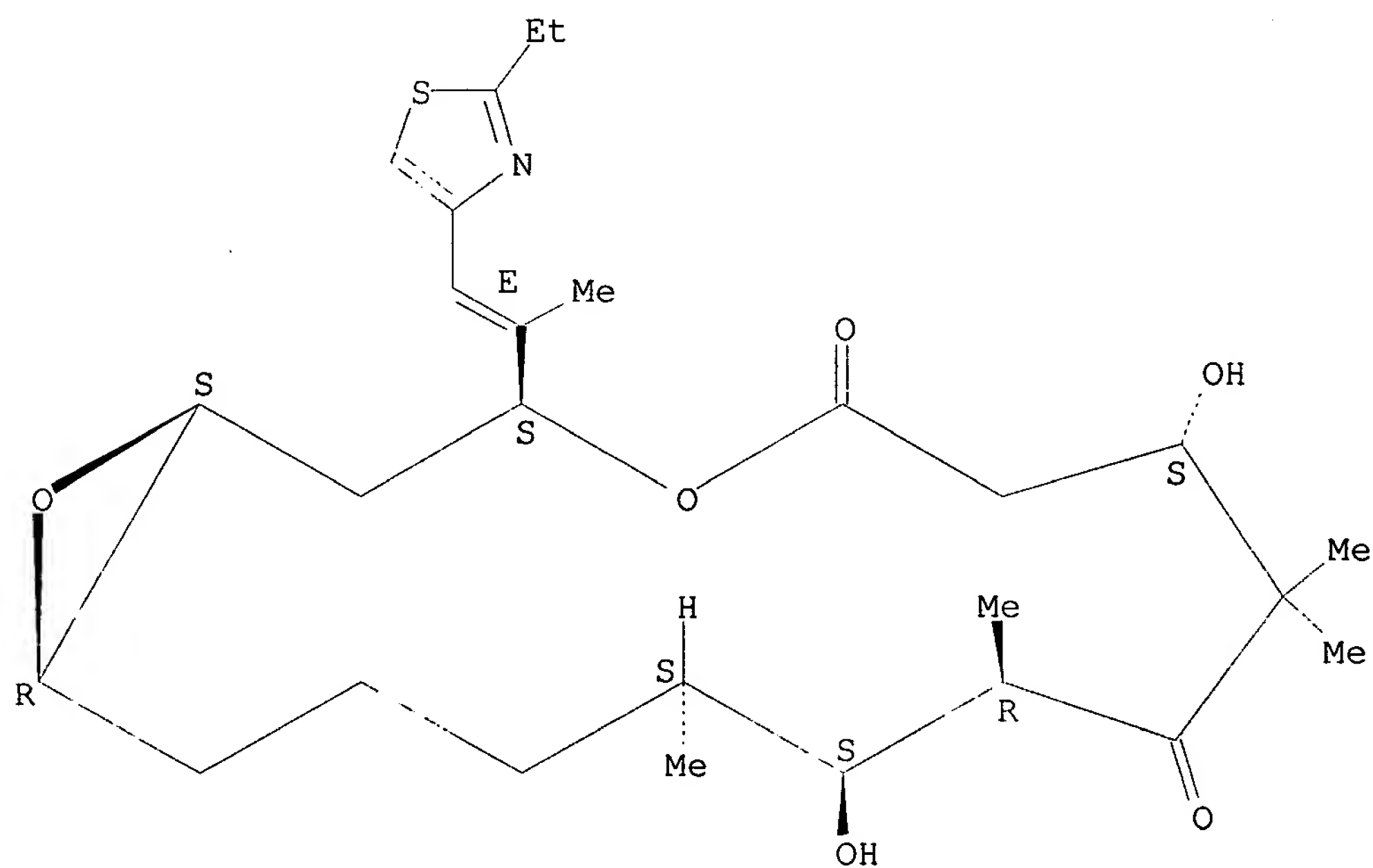
Double bond geometry as shown.



RN 220283-96-5 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 3-[(1E)-2-(2-ethyl-4-thiazolyl)-1-methylethenyl]-7,11-dihydroxy-8,8,10,12-tetramethyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



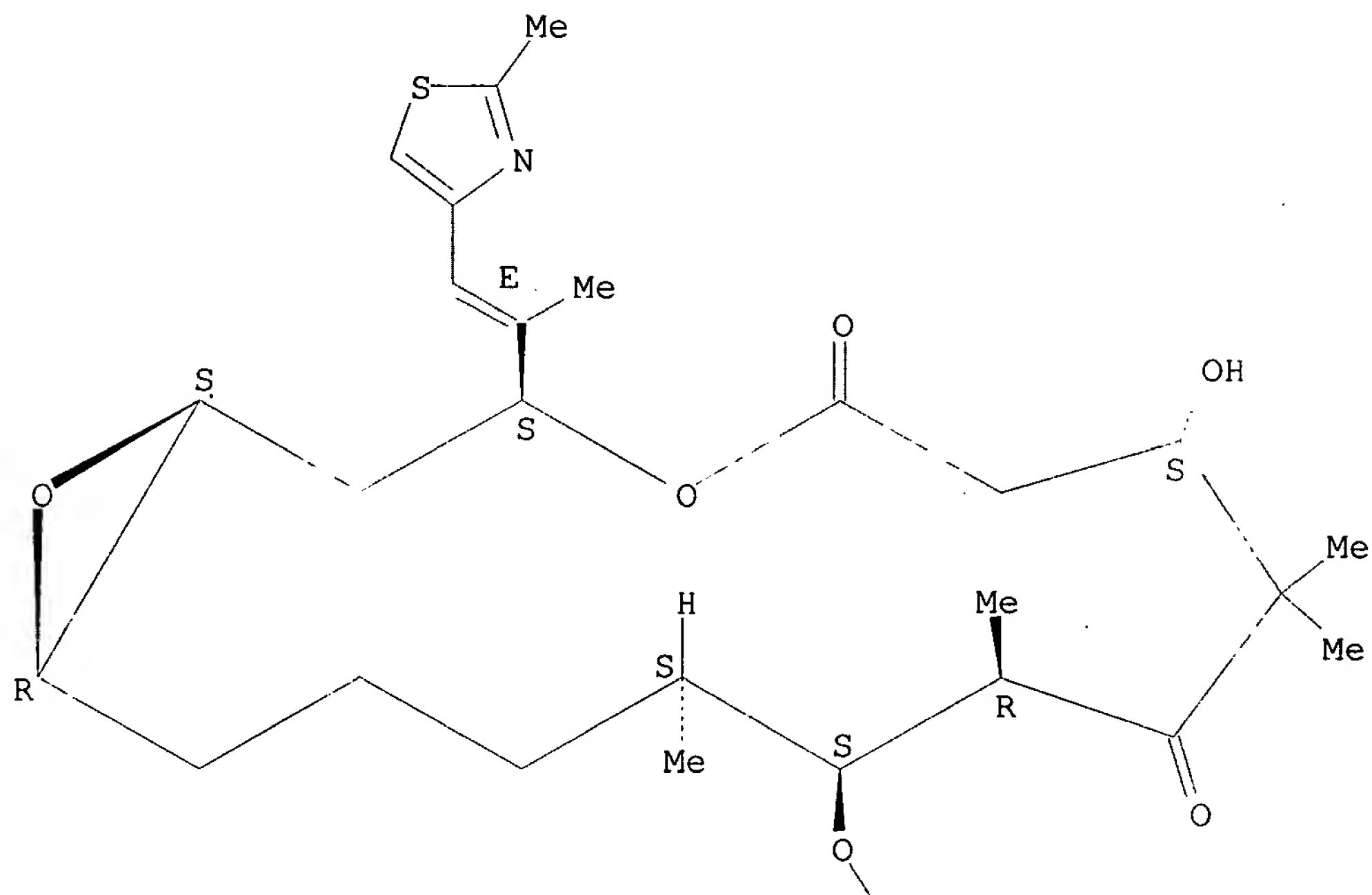
RN 220283-97-6 CAPLUS

CN Nitrous acid,
(1S,3S,7S,10R,11S,12S,16R)-7-hydroxy-8,8,10,12-tetramethyl-3-

[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-5,9-dioxo-4,17-dioxabicyclo[14.1.0]heptadec-11-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 2-A

NO

=> D BIB ABS HITSTR 5

L20 ANSWER 5 OF 28 CAPLUS COPYRIGHT 1999 ACS

AN 1999:48614 CAPLUS

DN 130:124934

TI Synthesis of epothilones, intermediates and analogs for use in treatment of cancers with multidrug-resistant phenotype

IN Danishefsky, Samuel J.; Balog, Aaron; Bertinato, Peter; Su, Dai-Shi; Chou,

Ting-Chau; Meng, Dong Fang; Kamenecka, Ted; Sorensen, Erik J.

PA Sloan-Kettering Institute for Cancer Research, USA

SO PCT Int. Appl., 175 pp.

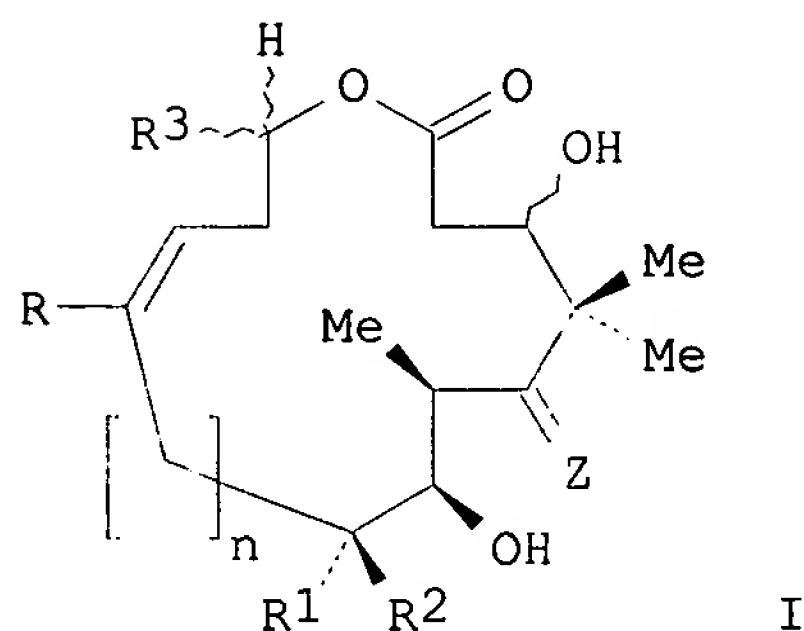
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

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	RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
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PRAI	US 96-32282		19961203		
	US 97-33767		19970114		
	US 97-47566		19970522		
	US 97-47941		19970529		
	US 97-55533		19970813		
	WO 97-US22381		19971203		
OS	MARPAT 130:124934				
GI					



AB Syntheses of epothilone A and B, desoxyepothilones A and B, and analogs (I) [R,R1,R2 = independently H, (un)substituted linear or branched chain alkyl; R3 = CHY=CHX, H, linear or branched chain alkyl, Ph, 2-methyl-1,3-thiazolinyl, 2-, 3-, or 4-furanyl, 2-, 3-, or 4-pyridyl, imidazolyl, 2-methyl-1,3-oxazolinyl, 3- or 6-indolyl; X = H, linear or

branched chain alkyl, Ph, 2-methyl-1,3-thiazoliny, 2-, 3-, or 4-furanyl, 2-, 3-, or 4-pyridyl, imidazolyl, 2-methyl-1,3-oxazoliny, 3- or 6-indolyl; Y = H, linear or branched chain alkyl; Z = O, substituted NOH, substituted NNH₂; n = 0-3] and their intermediates are described. Activities of novel compns. based on I and methods for the treatment of cancer and cancer which has developed a multidrug-resistant phenotype are presented.

IT 192370-82-4P 198475-04-6P 198475-05-7P

219824-14-3P 219824-34-7P

RL: BAC (Biological activity or effector, except adverse); RCT (Reactant);

SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

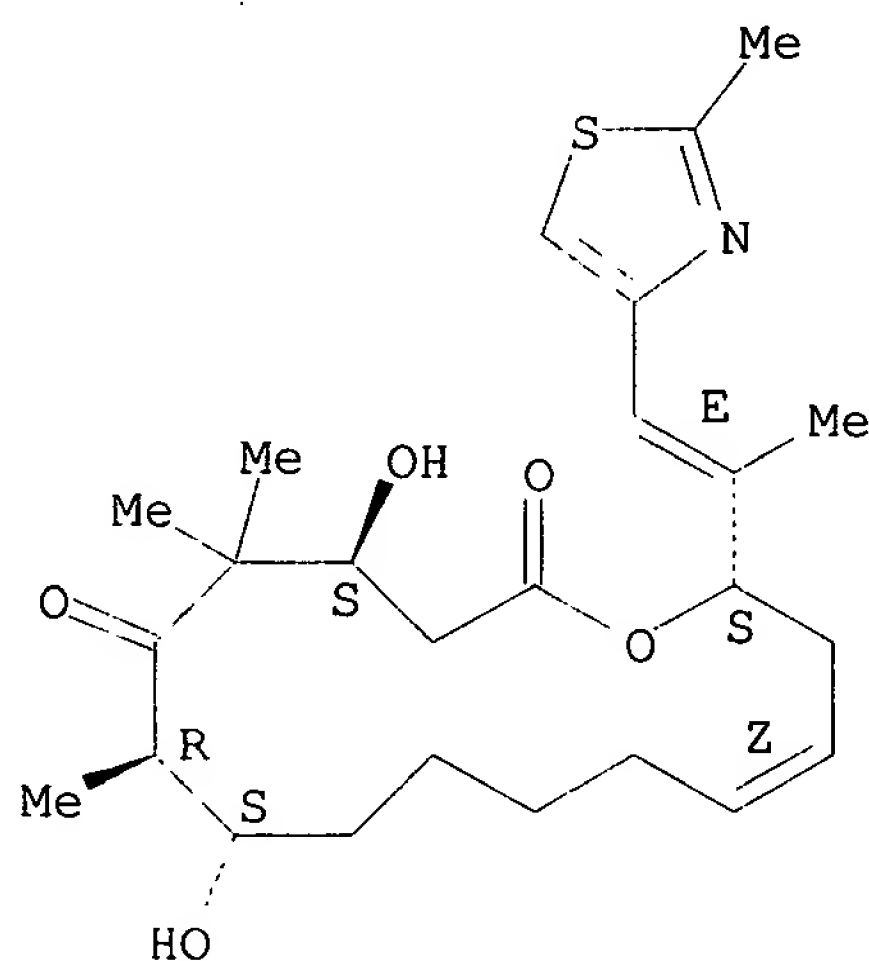
(synthesis of epothilones, intermediates and analogs for use in treatment of cancers with multidrug-resistant phenotype)

RN 192370-82-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7-trimethyl-16-[(1E)-1-
methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,13Z,16S)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

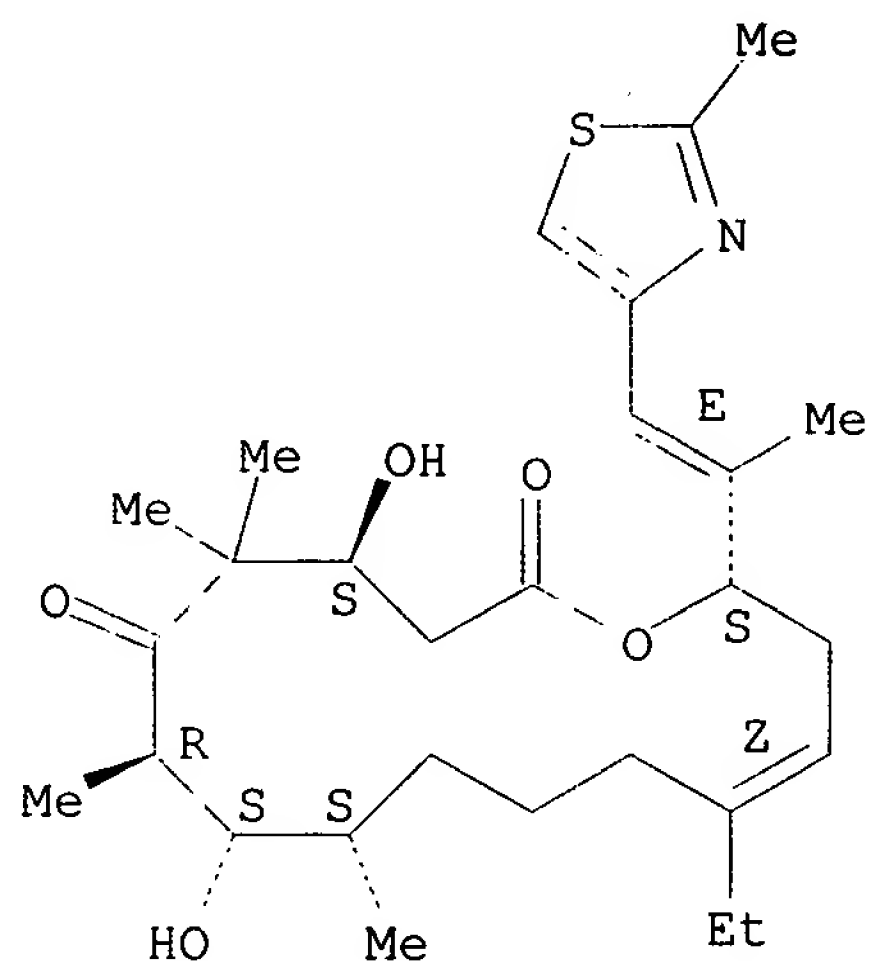


RN 198475-04-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-ethyl-4,8-dihydroxy-5,5,7,9-
tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

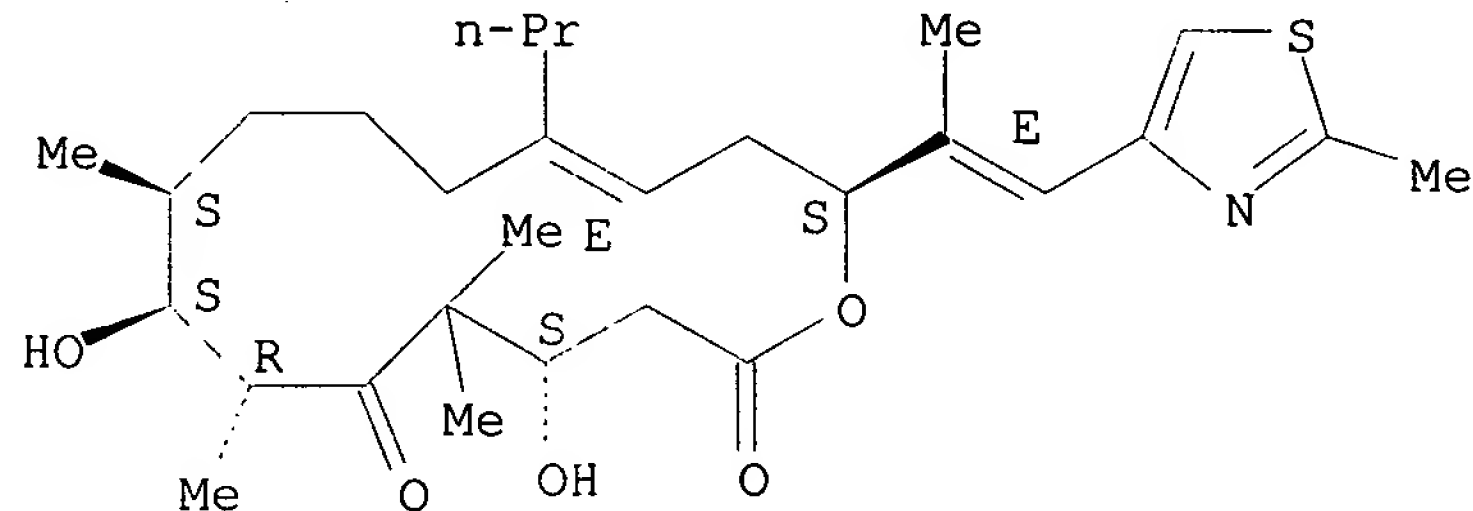


RN 198475-05-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-propyl-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

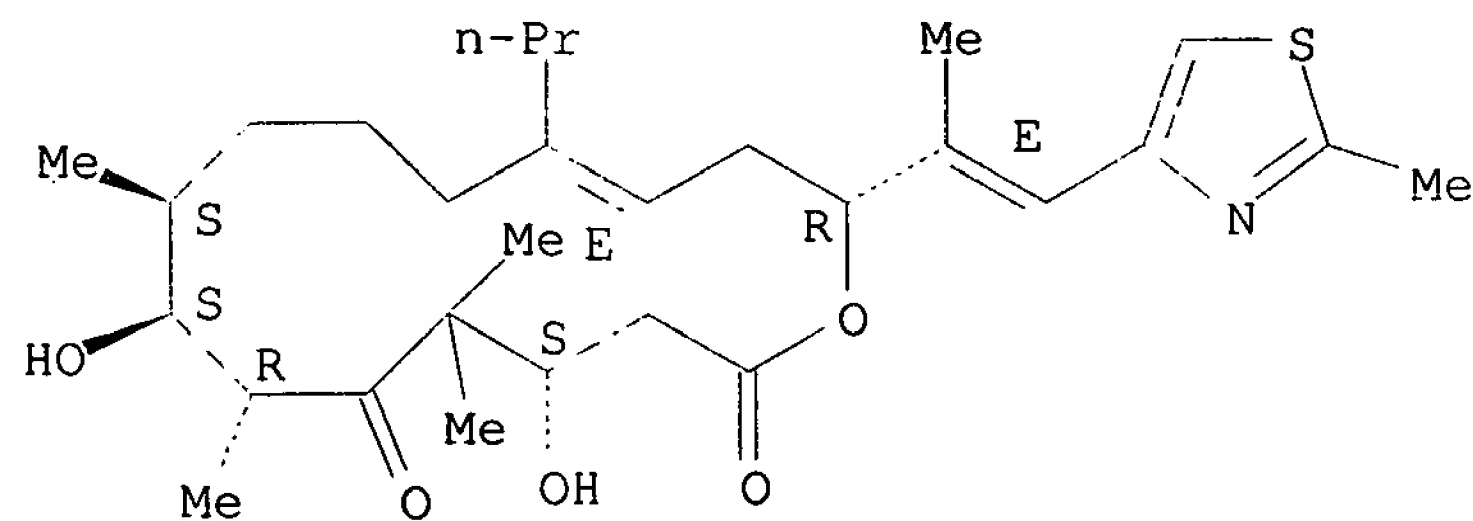


RN 219824-14-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-propyl-, (4S,7R,8S,9S,13E,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

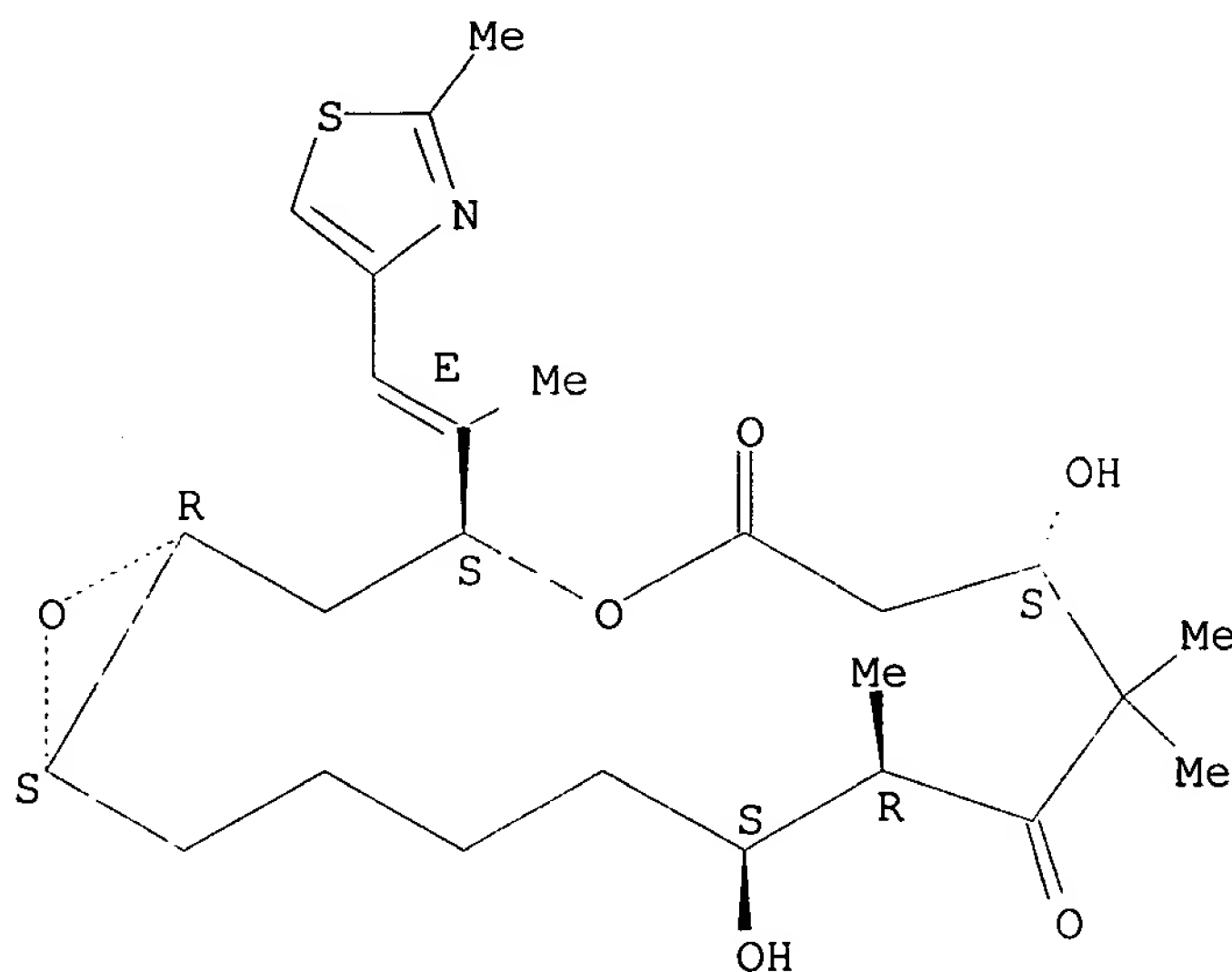
Double bond geometry as shown.



RN 219824-34-7 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10-trimethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10R,11S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT 192370-71-1P 198475-08-0P 219824-10-9P
219840-28-5P

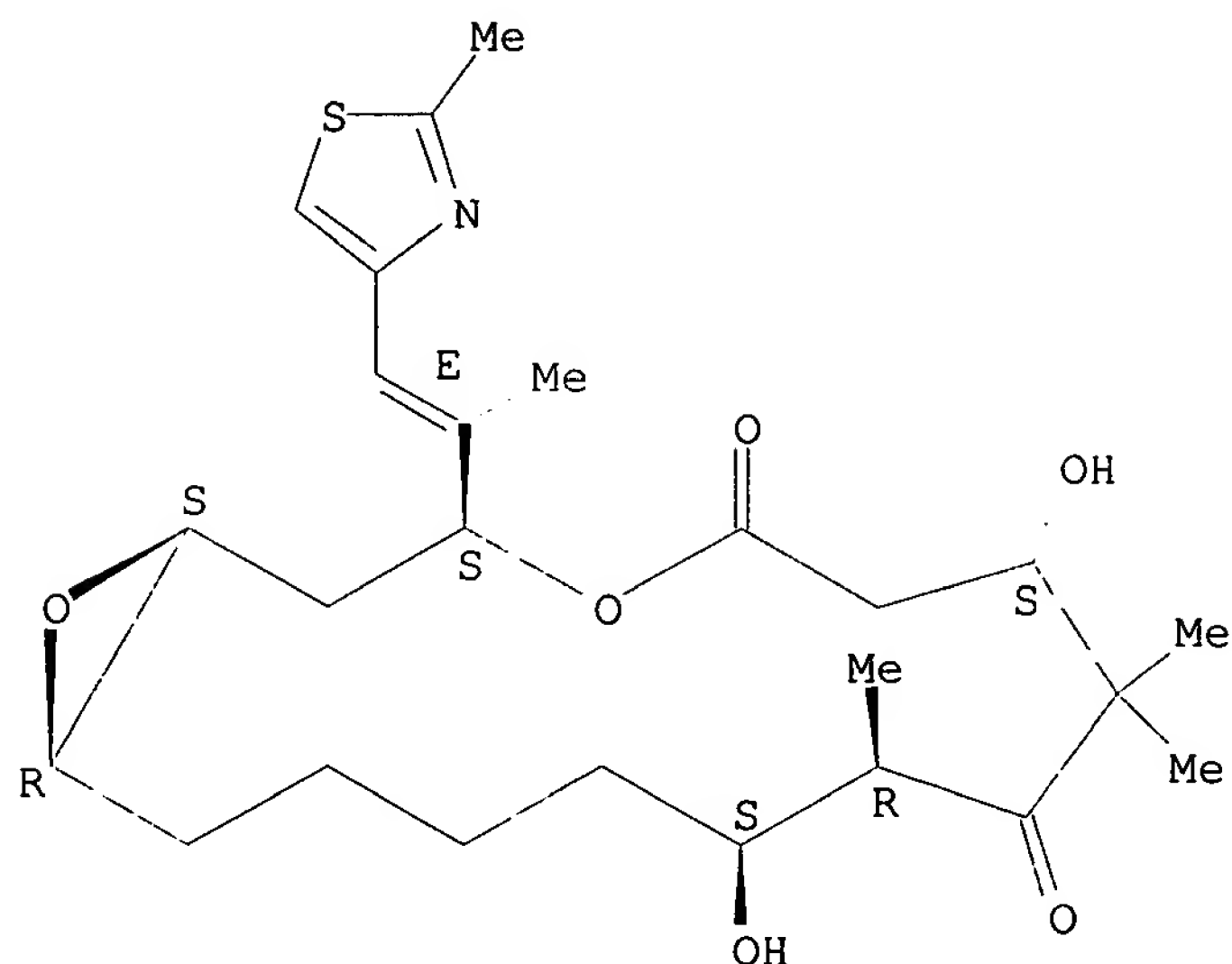
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis of epothilones, intermediates and analogs for use in treatment of cancers with multidrug-resistant phenotype)

RN 192370-71-1 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10-trimethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,16R)- (9CI) (CA INDEX NAME)

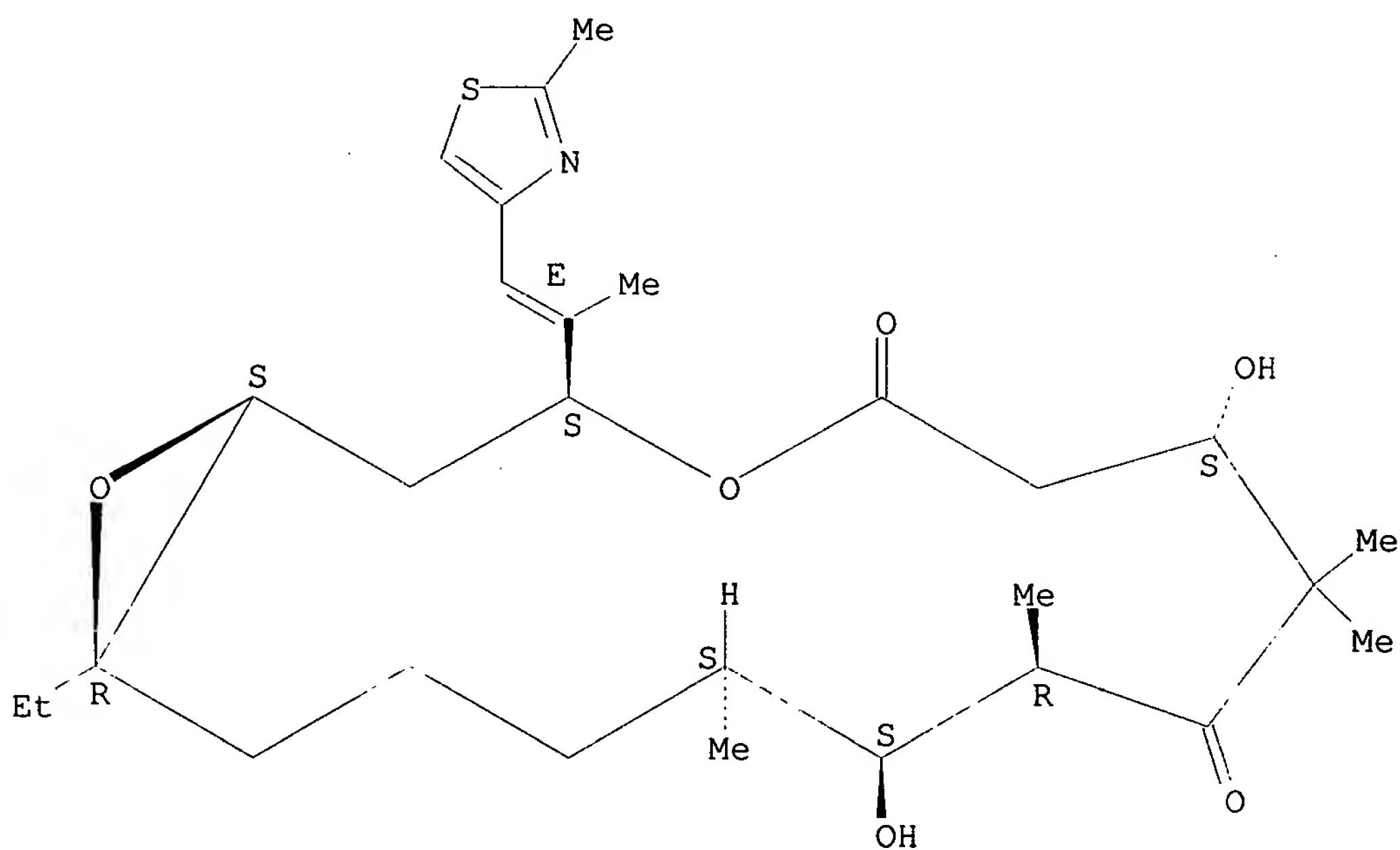
Absolute stereochemistry.
Double bond geometry as shown.



RN 198475-08-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-ethyl-7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

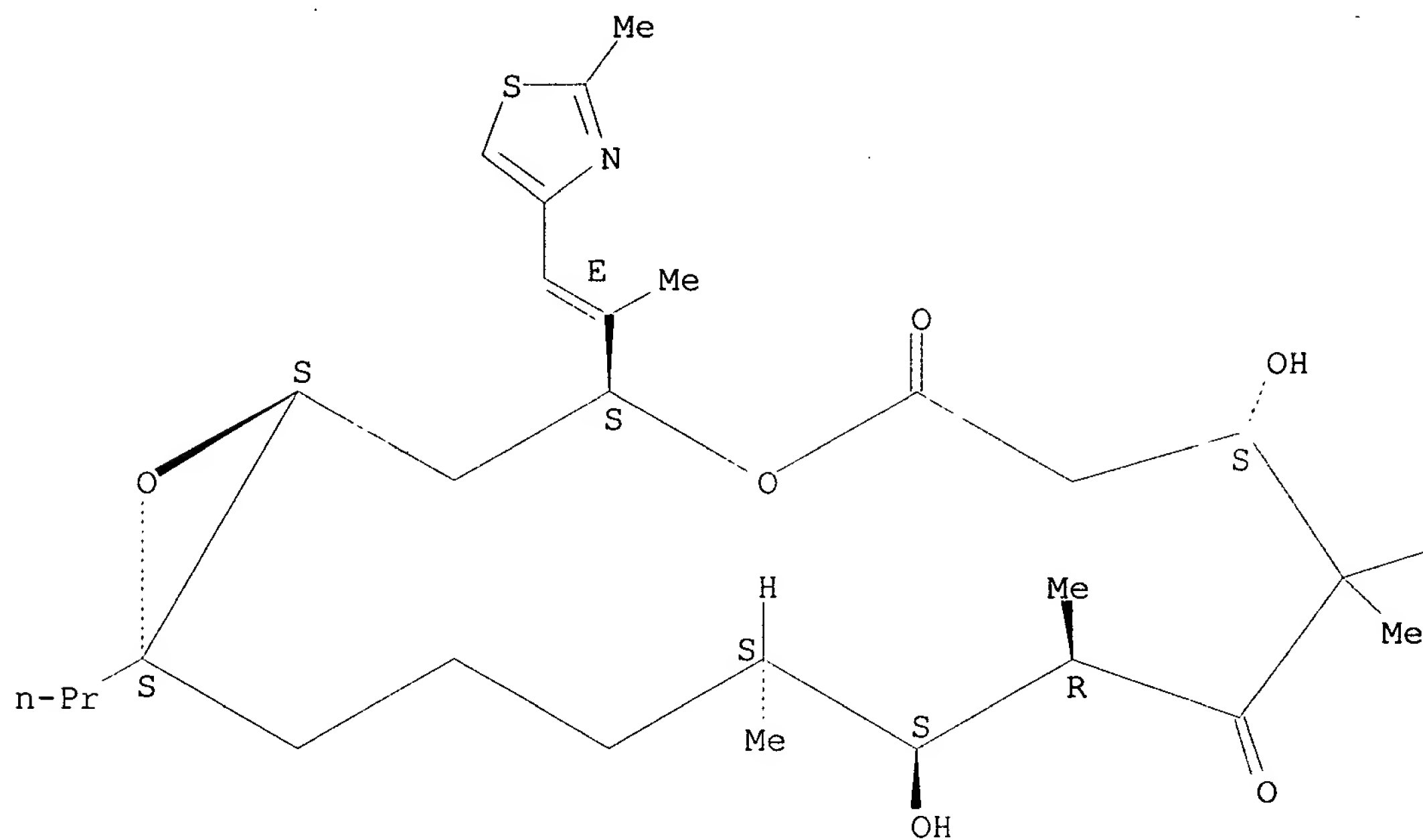


RN 219824-10-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-propyl-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



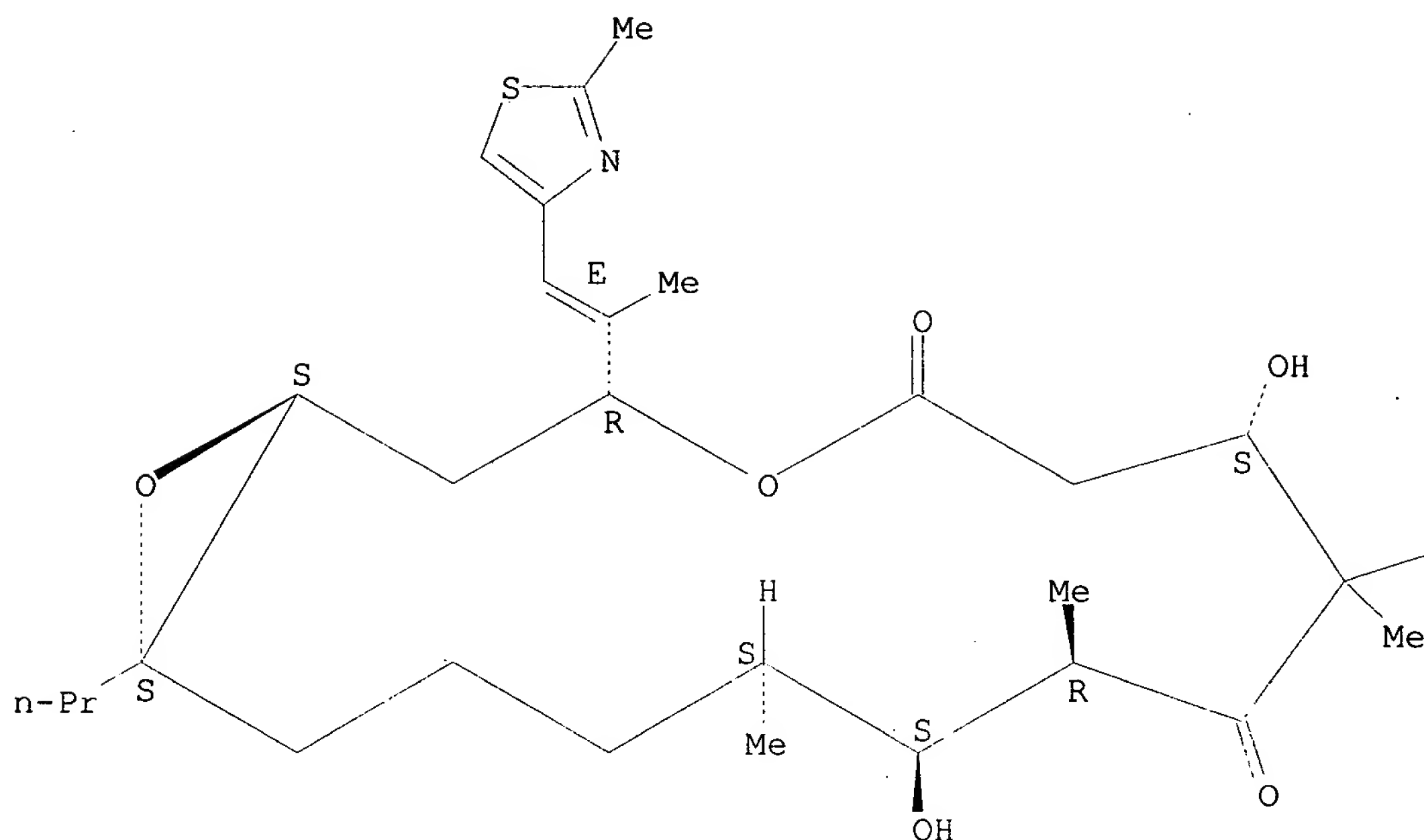
PAGE 1-B

Me

RN 219840-28-5 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-propyl-, (1S,3R,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

Me

IT 188259-95-2 188260-09-5 188260-10-8
 189453-40-5 198475-06-8 198475-07-9
 198475-09-1 198475-10-4 198475-11-5
 198475-18-2 219555-42-7 219824-35-8
 219824-36-9 219824-37-0

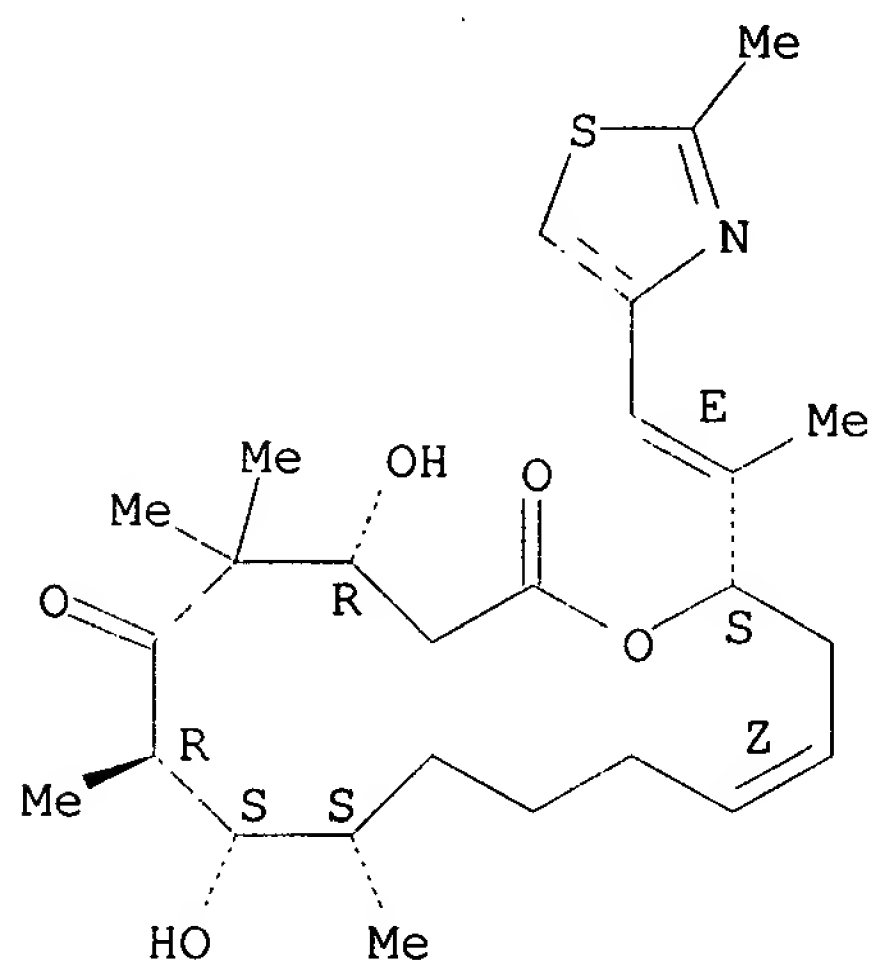
RL: BAC (Biological activity or effector, except adverse); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (synthesis of epothilones, intermediates and analogs for use in
 treatment of cancers with multidrug-resistant phenotype)

RN 188259-95-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-

[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

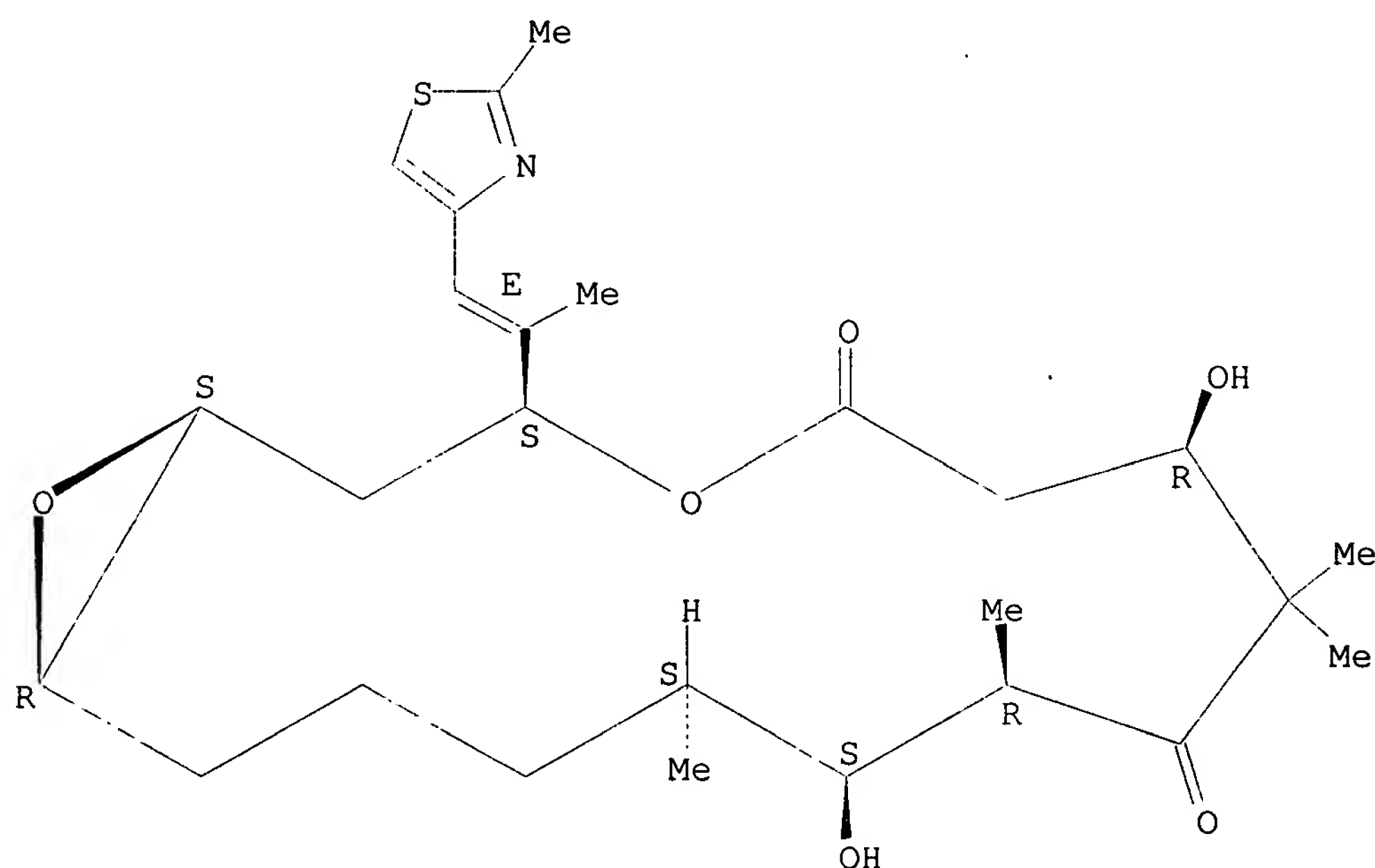
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 188260-09-5 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7R,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

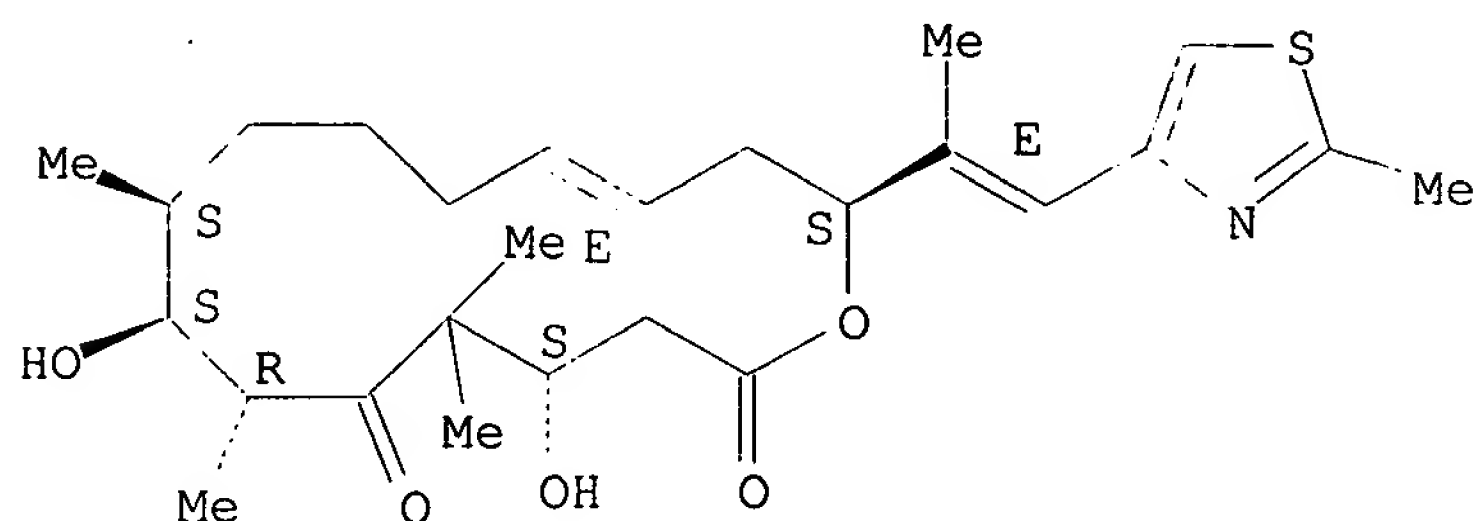


RN 188260-10-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-

[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

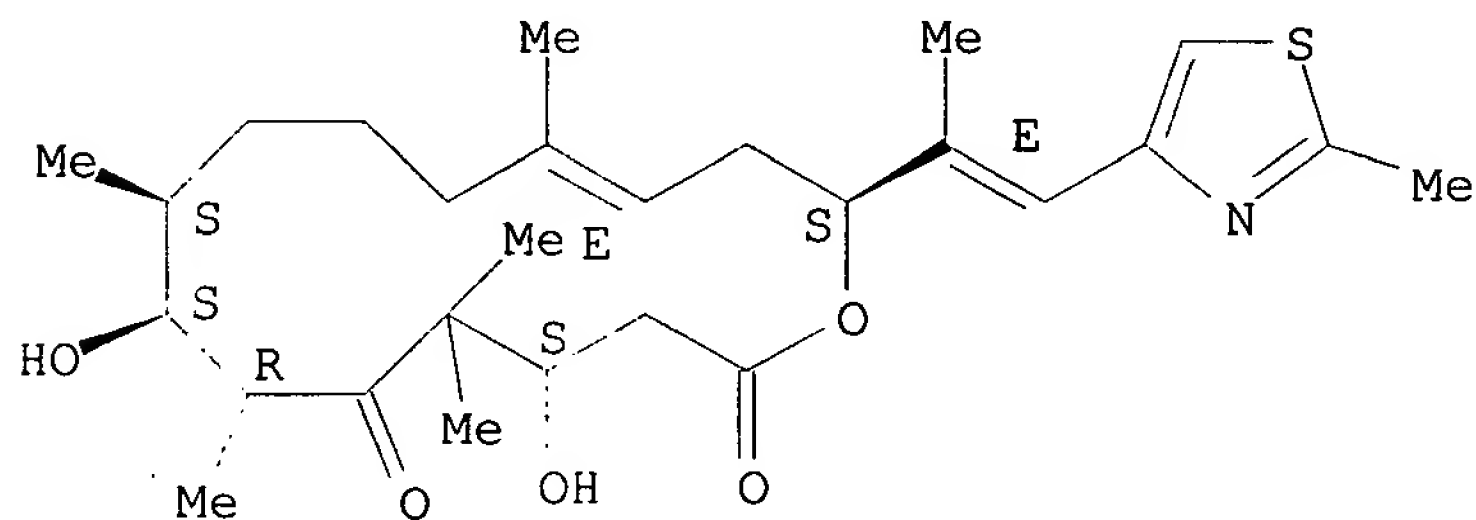
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 189453-40-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

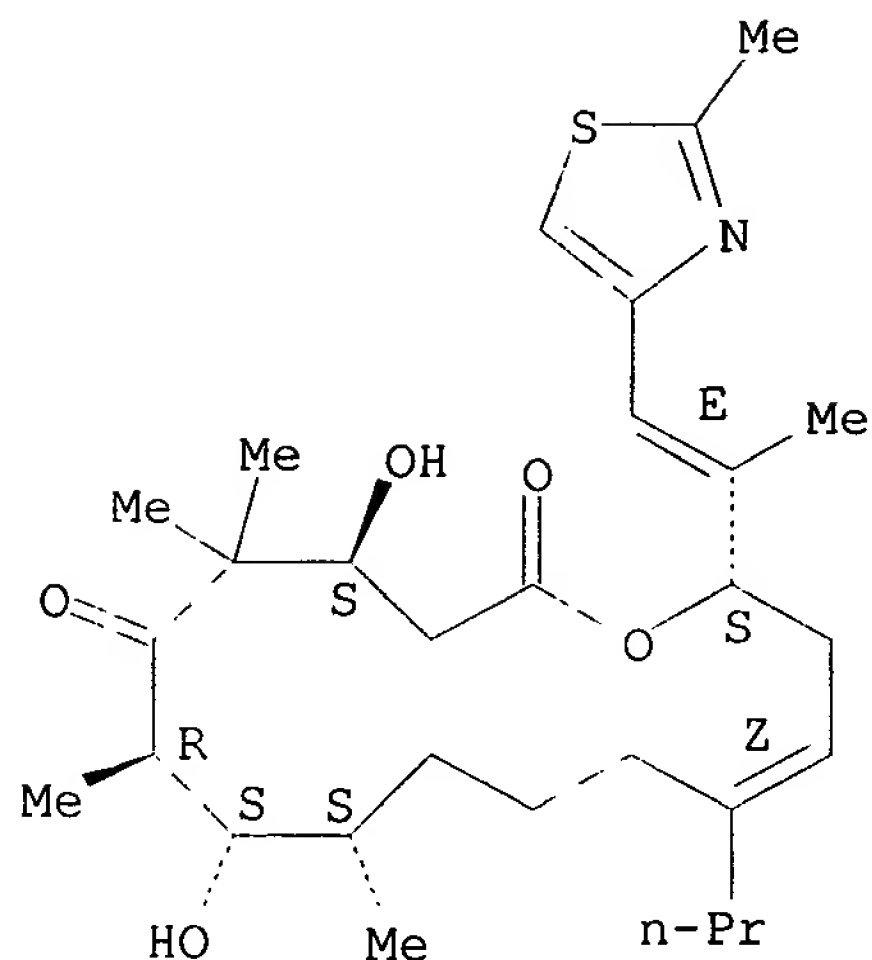
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 198475-06-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-propyl-,
(4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

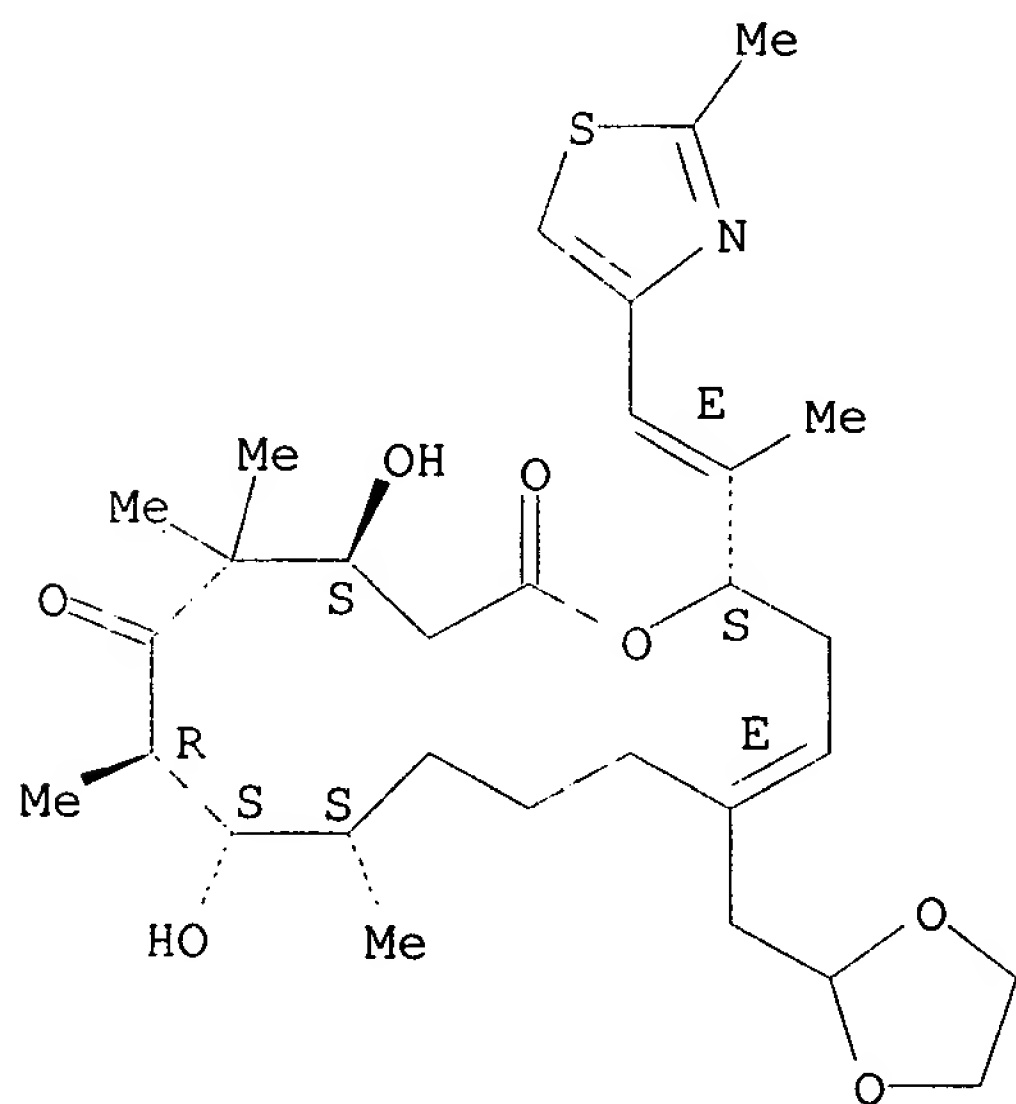
Absolute stereochemistry.
Double bond geometry as shown.



RN 198475-07-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-(1,3-dioxolan-2-ylmethyl)-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

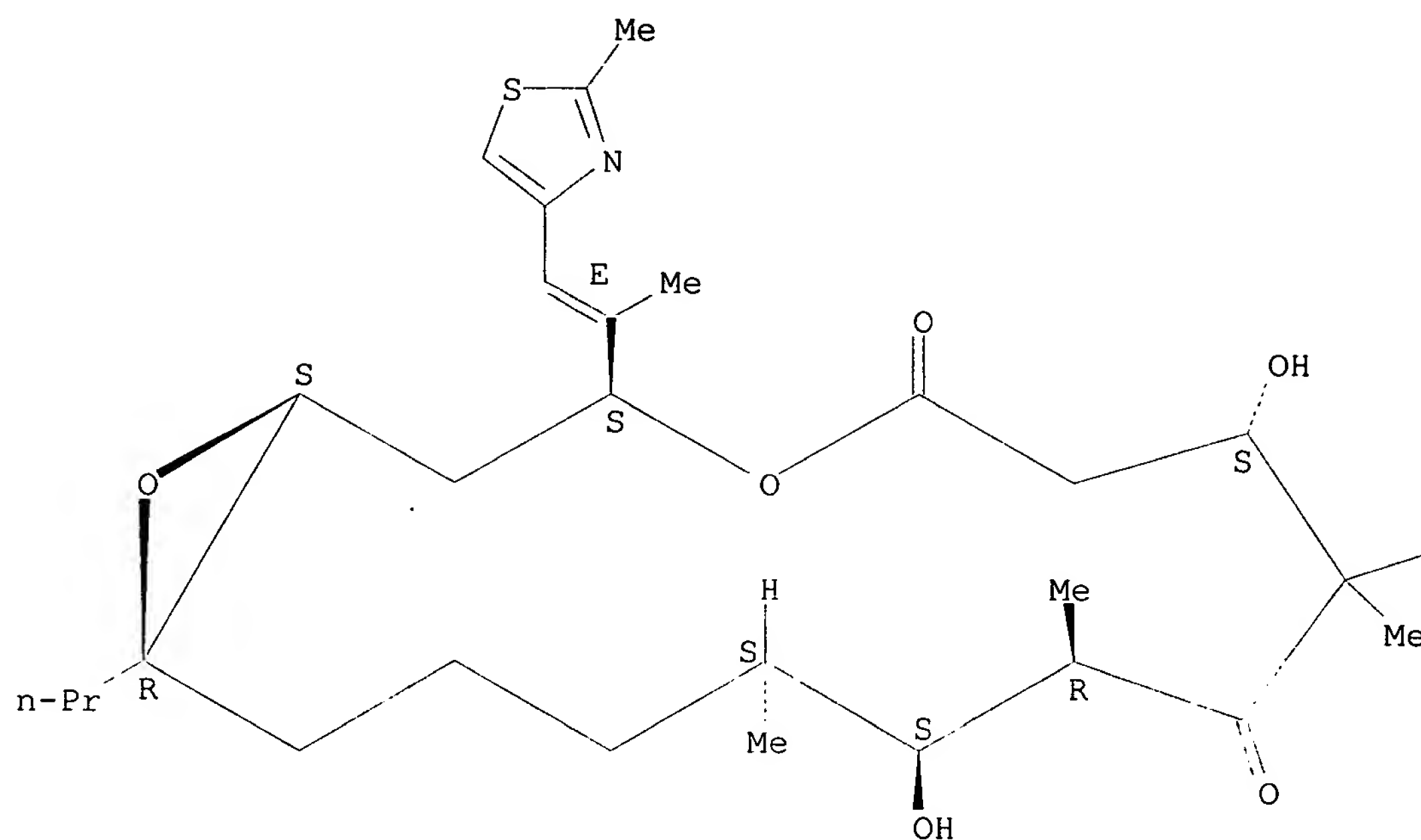


RN 198475-09-1 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-propyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

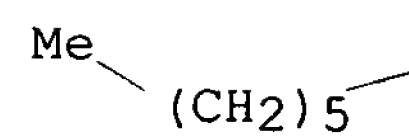
Me

RN 198475-10-4 CAPLUS

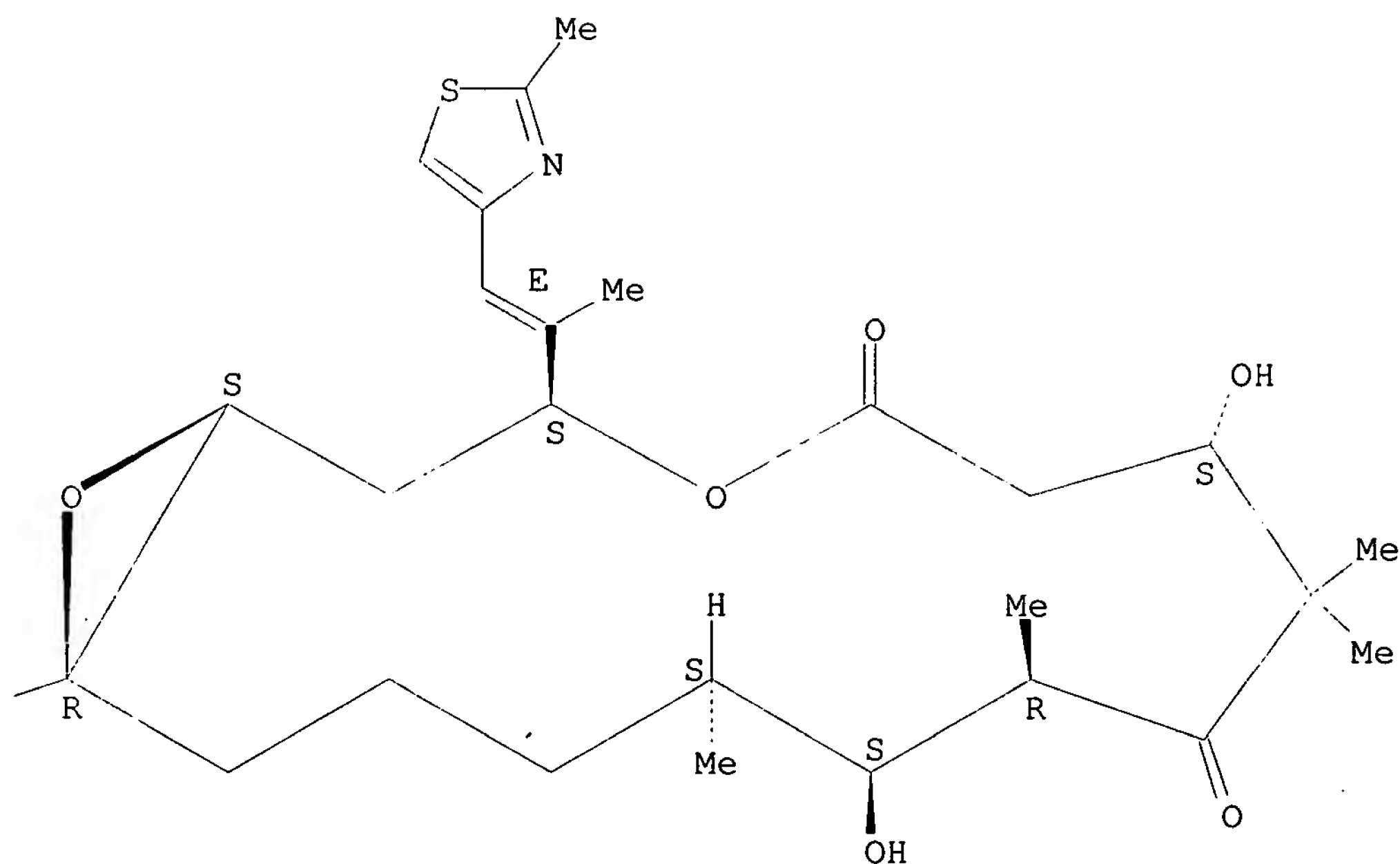
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-hexyl-7,11-dihydroxy-
8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



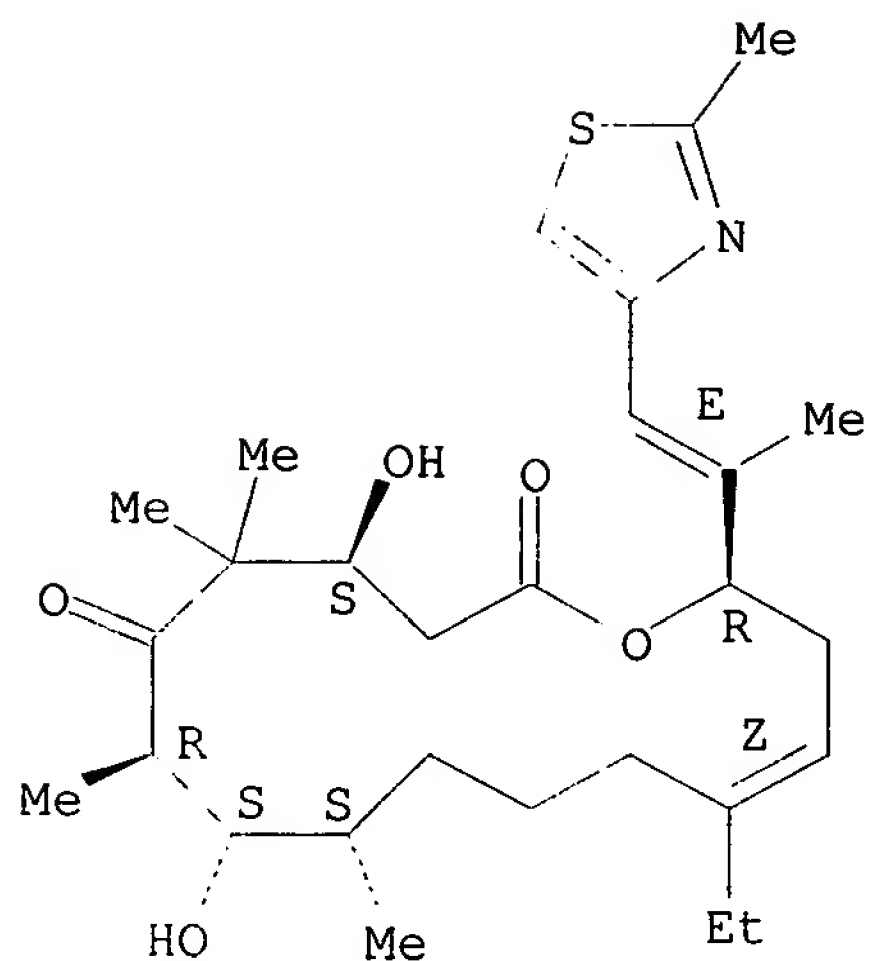
PAGE 1-B



RN 198475-11-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-ethyl-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16R)- (9CI) (CA INDEX NAME)

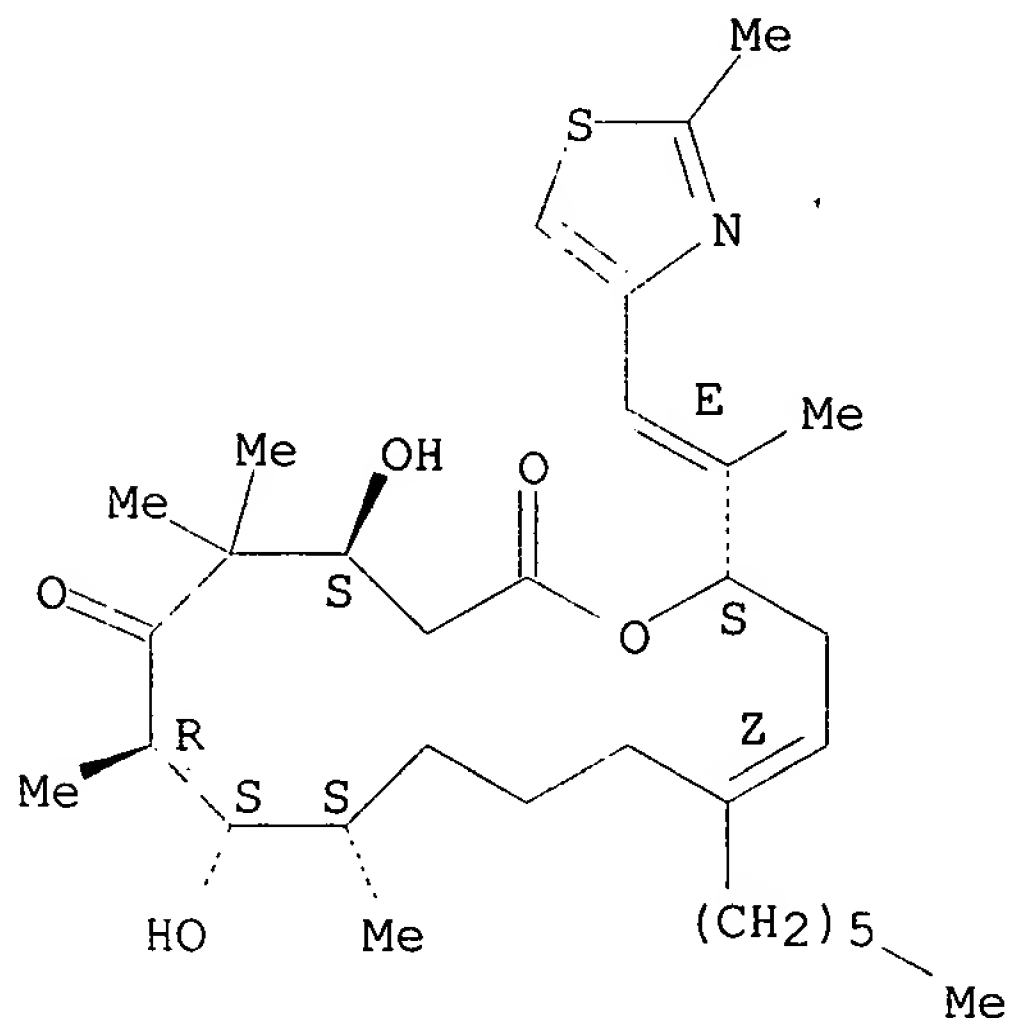
Absolute stereochemistry.
Double bond geometry as shown.



RN 198475-18-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-hexyl-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

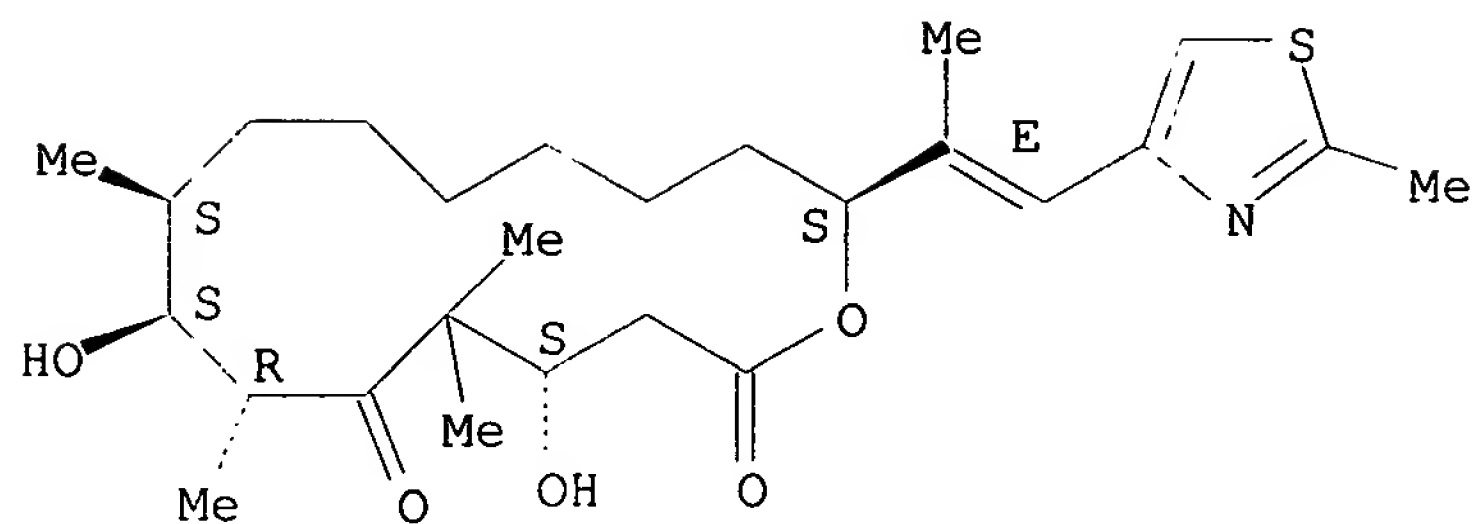
Absolute stereochemistry.
Double bond geometry as shown.



RN 219555-42-7 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

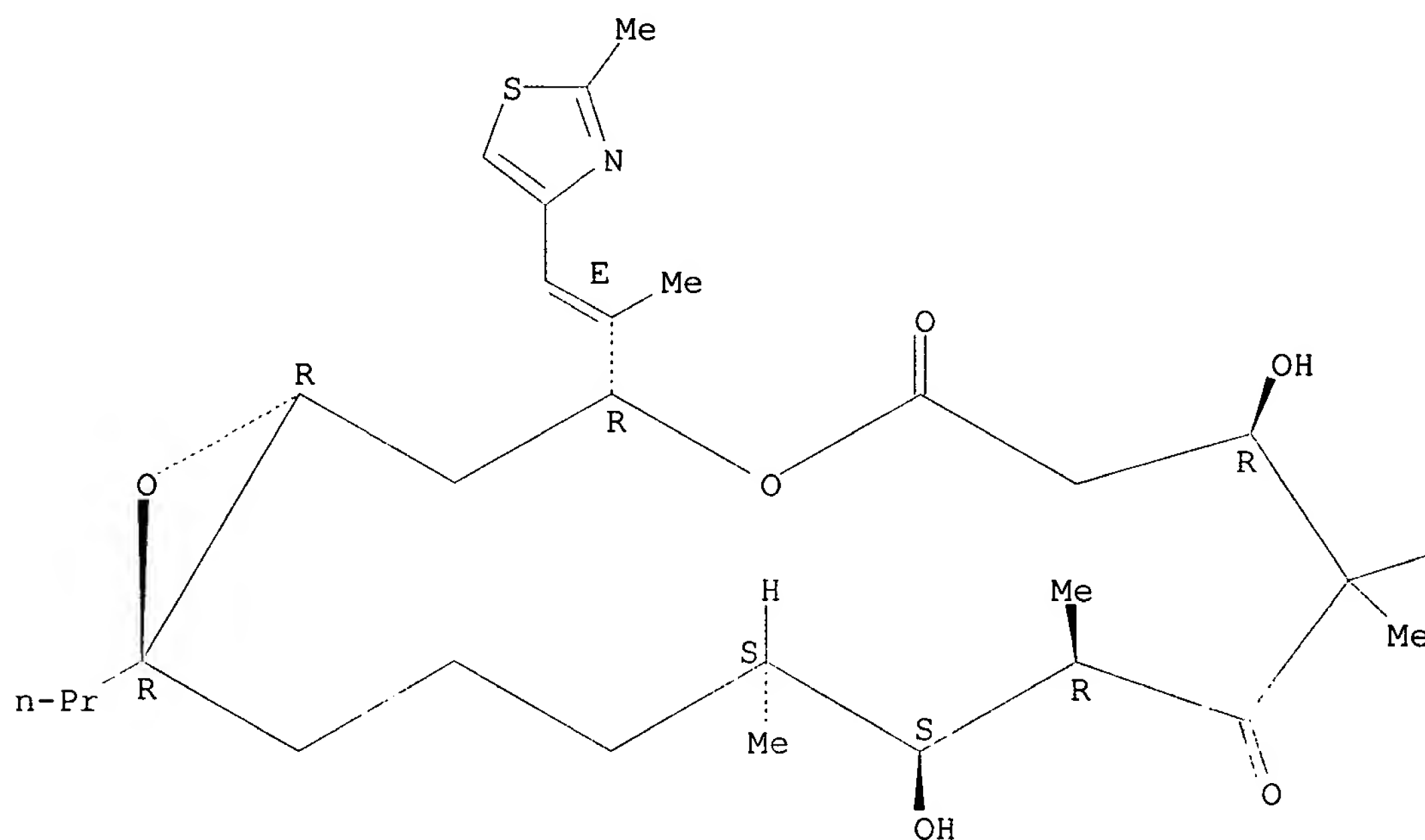


RN 219824-35-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-propyl-, (1R,3R,7R,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

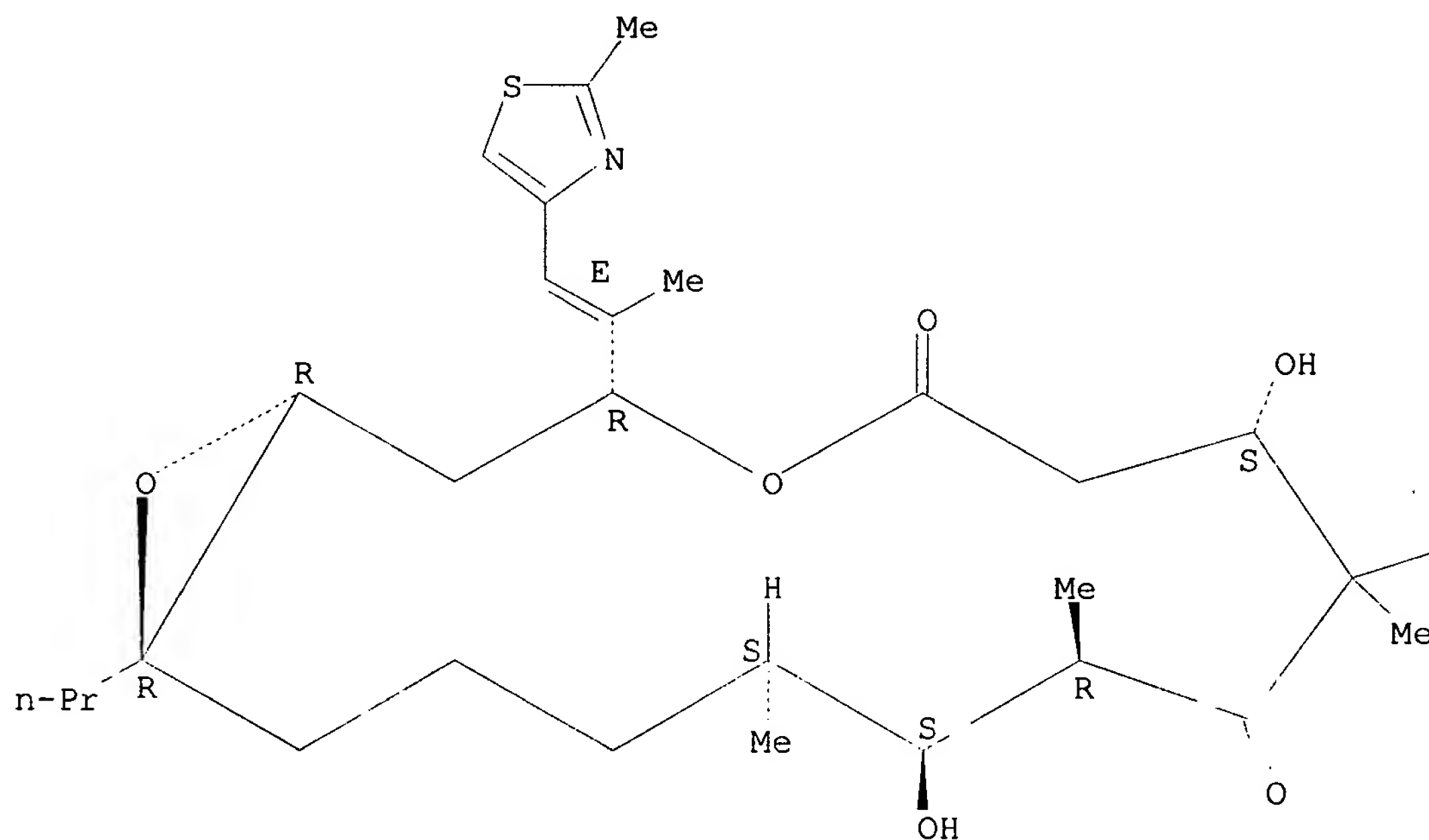
Me

RN' 219824-36-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-propyl-, (1R,3R,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

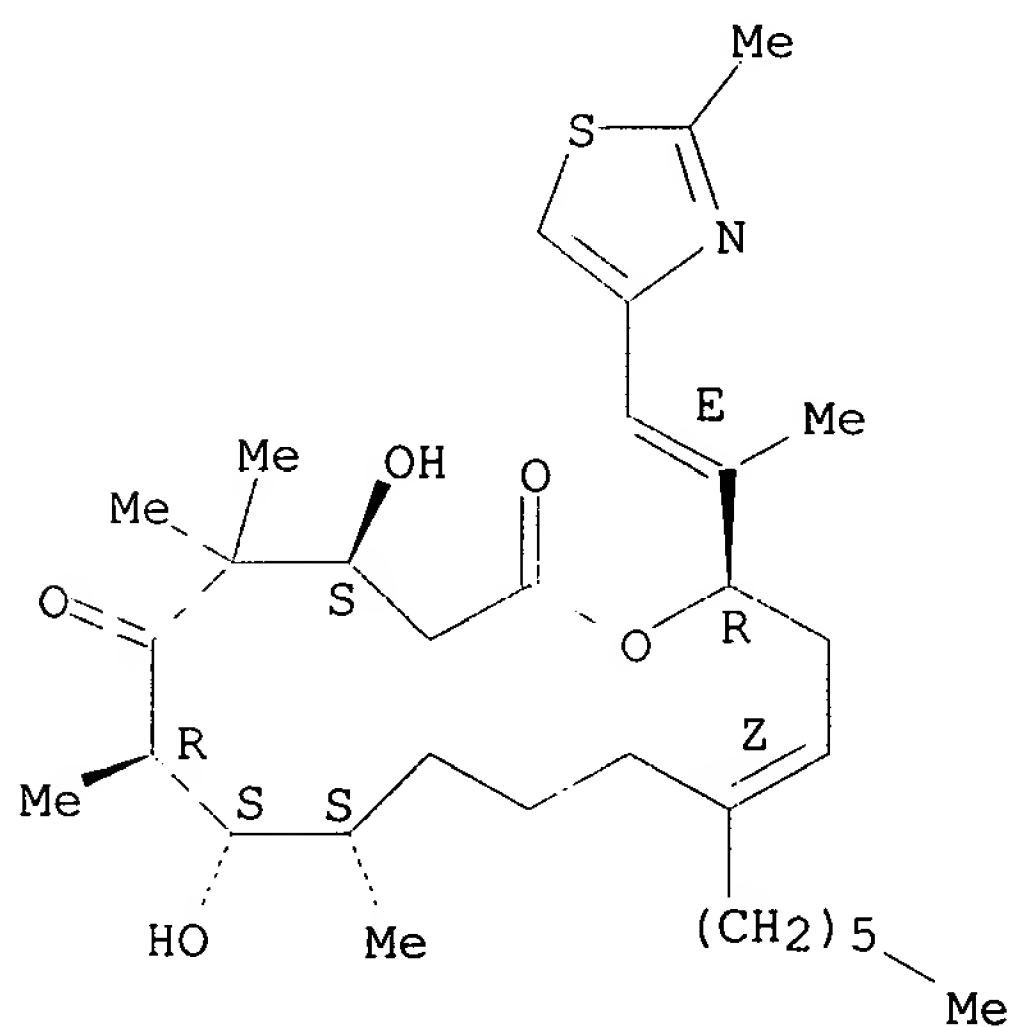
Me

RN 219824-37-0 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-hexyl-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



=> D BIB ABS HITSTR 6

L20 ANSWER 6 OF 28 CAPLUS COPYRIGHT 1999 ACS

AN 1999:19340 CAPLUS

DN 130:217758

TI Desoxyepothilone B is curative against human tumor xenografts that are refractory to paclitaxel

AU Chou, Ting-Chao; Zhang, Xiu-Guo; Harris, Christina R.; Kuduk, Scott D.; Balog, Aaron; Savin, Kenneth A.; Bertino, Joseph R.; Danishefsky, Samuel J.

CS Molecular Pharmacology and Therapeutics Program, Sloan-Kettering Institute

for Cancer Research, New York, NY, 10021, USA

SO Proc. Natl. Acad. Sci. U. S. A. (1998), 95(26), 15798-15802

CODEN: PNASA6; ISSN: 0027-8424

PB National Academy of Sciences

DT Journal

LA English

AB The epothilones are naturally occurring, cytotoxic macrolides that function through a paclitaxel (Taxol)-like mechanism. Although structurally dissimilar, both classes of mols. lead to the arrest of cell division and eventual cell death by stabilizing cellular microtubule assemblies. The epothilones differ in their ability to retain activity against multidrug-resistant (MDR) cell lines and tumors where paclitaxel fails. In the current account, we focus on the relationship between epothilone and paclitaxel in the context of tumors with multiple drug resistance. The epothilone analog Z-12,13-desoxyepothilone B (dEpoB) is >35,000-fold more potent than paclitaxel in inhibiting cell growth in the MDR DC-3F/ADX cell line. Various formulations, routes, and schedules of i.v. administration of dEpoB have been tested in nude mice. Slow

infusion

with a Cremophor-ethanol vehicle proved to be the most beneficial in increasing efficacy and decreasing toxicity. Although dEpoB performed similarly to paclitaxel in sensitive tumors xenografts (MX-1 human

mammary

and HT-29 colon tumor), its effects were clearly superior against MDR tumors. When dEpoB was administered to nude mice bearing our MDR human lymphoblastic T cell leukemia (CCRF-CEM/paclitaxel), dEpoB demonstrated a full curative effect. For human mammary adenocarcinoma MCF-7/Adr cells refractory to paclitaxel, dEpoB reduced the established tumors, markedly suppressed tumor growth, and surpassed other commonly used chemotherapy drugs such as adriamycin, vinblastine, and etoposide in beneficial effects.

IT 198475-07-9 201136-64-3 221058-23-7

221058-24-8 221058-25-9

RL: BAC (Biological activity or effector, except adverse); PRP (Properties); BIOL (Biological study)

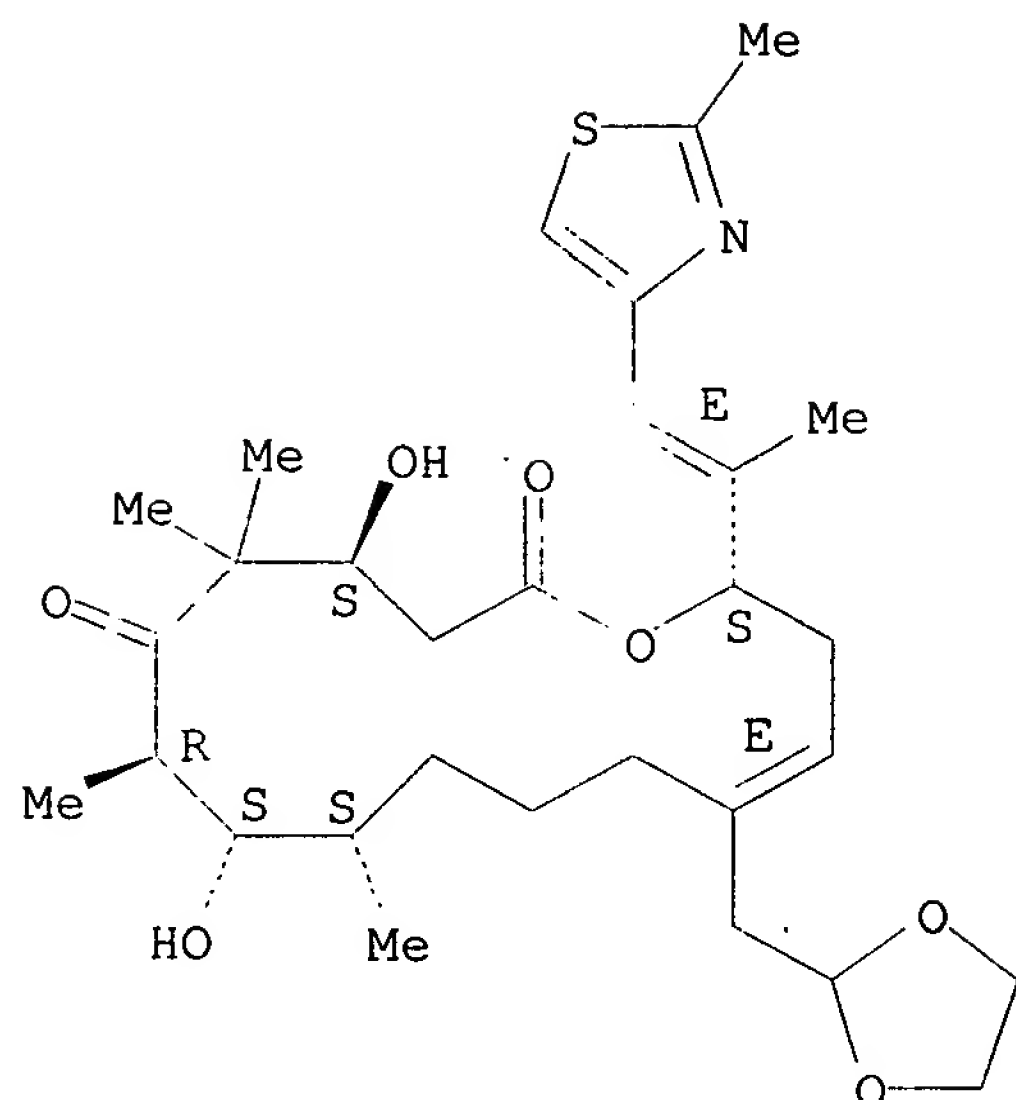
(antitumor activity of desoxyepothilone B analogs)

RN 198475-07-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-(1,3-dioxolan-2-ylmethyl)-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

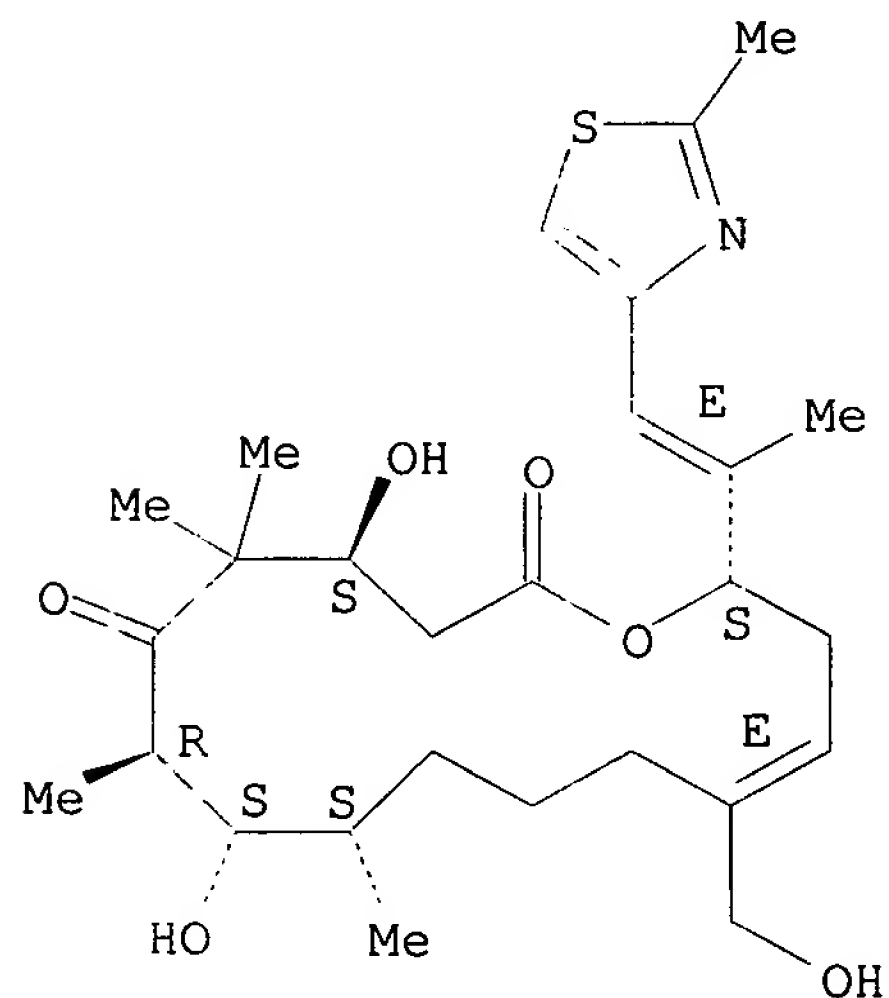
Double bond geometry as shown.



RN 201136-64-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-13-(hydroxymethyl)-5,5,7,9-
tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

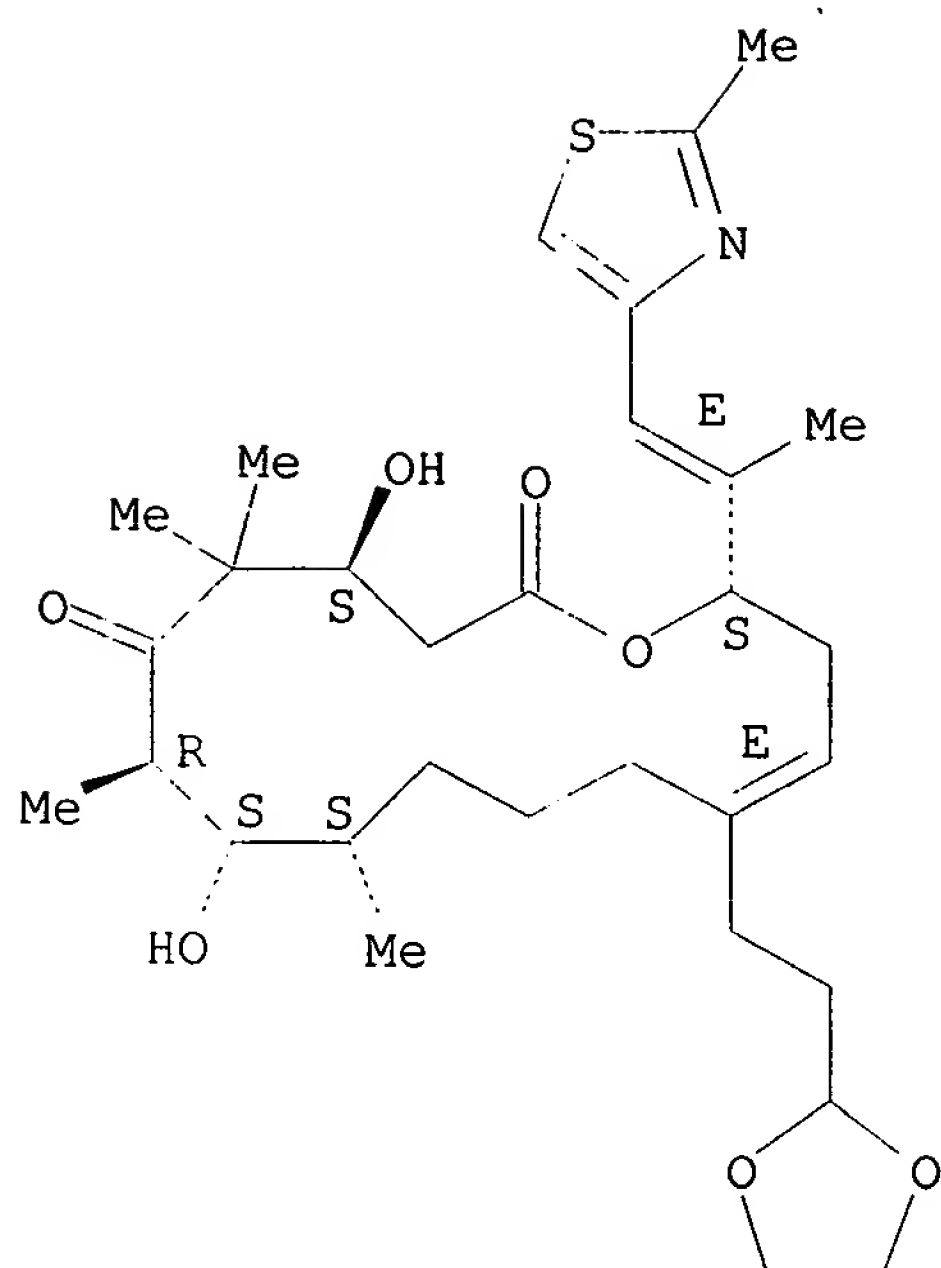
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 221058-23-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-[2-(1,3-dioxolan-2-yl)ethyl]-4,8-
dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

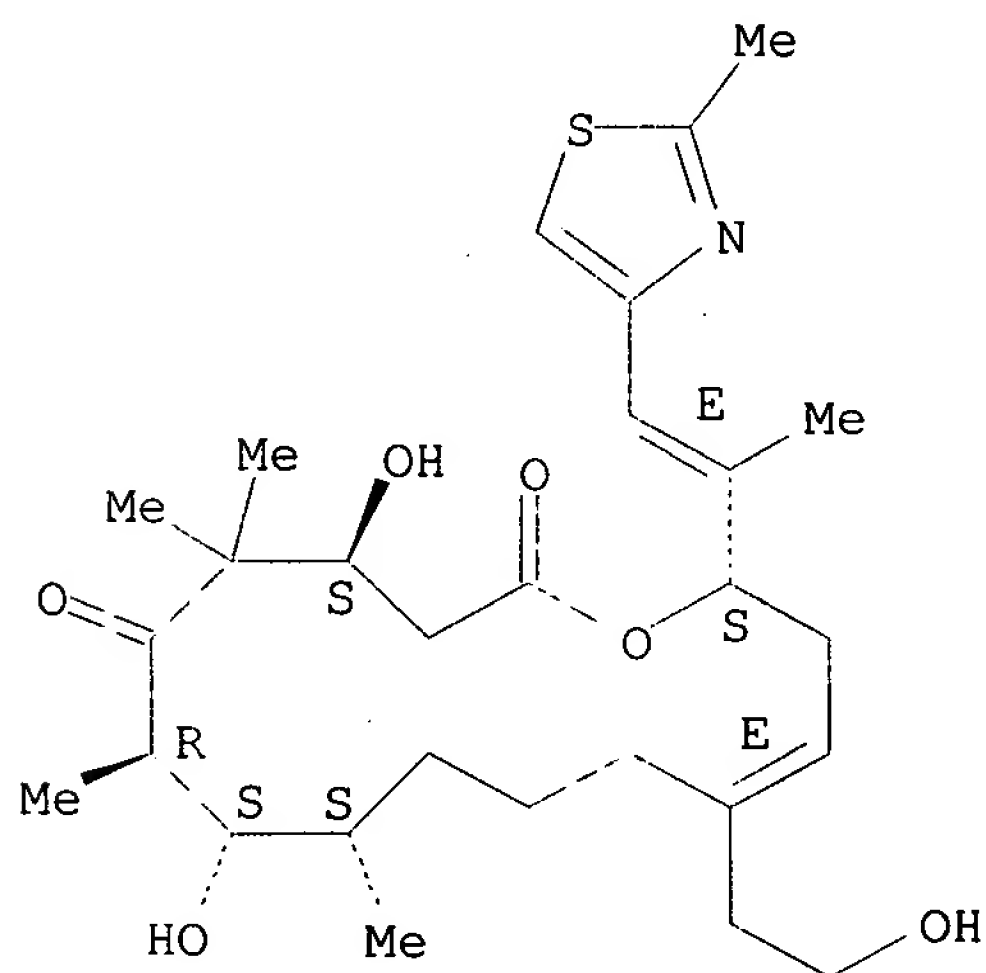
Absolute stereochemistry.
Double bond geometry as shown.



RN 221058-24-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-13-(2-hydroxyethyl)-
5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

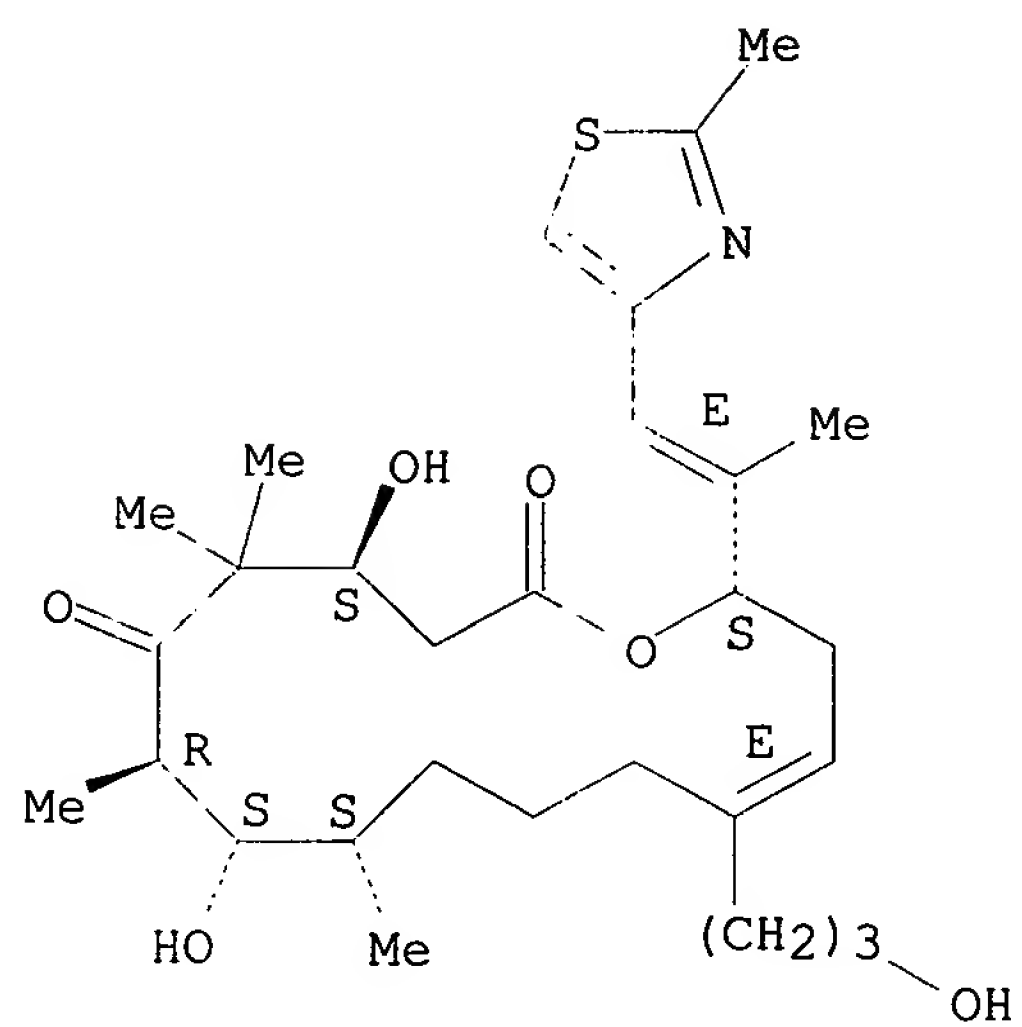


RN 221058-25-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-13-(3-hydroxypropyl)-
5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



=> D BIB ABS HITSTR 7

L20 ANSWER 7 OF 28 CAPLUS COPYRIGHT 1999 ACS

AN 1998:760826 CAPLUS

DN 130:95407

TI Derivatization of the C12-C13 functional groups of epothilones A, B and C

AU Sefkow, Michael; Kiffe, Michael; Hofle, Gerhard

CS Gesellschaft fur Biotechnologische Forschung mbH, Abt. Naturstoffchemie, Braunschweig, D-38124, Germany

SO Bioorg. Med. Chem. Lett. (1998), 8(21), 3031-3036

CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 130:95407

AB Epothilone A reacted with hydrohalic acids to give C12-C13 halohydrin regioisomers (ratios: 2:1 - 4:1), whereas epothilone B gave under the same

conditions the isomerically pure C12 halo C13 hydroxy deriv. With non-nucleophilic Bronstedt acids and with Lewis acids a highly solvent dependent product distribution and some unexpected rearrangement products were obsd. Epothilone C bearing a double bond between C12 and C13 was regioselectively dihydroxylated or hydrogenated at that position.

IT 219555-43-8P 219555-44-9P

RL: BAC (Biological activity or effector, except adverse); RCT (Reactant);

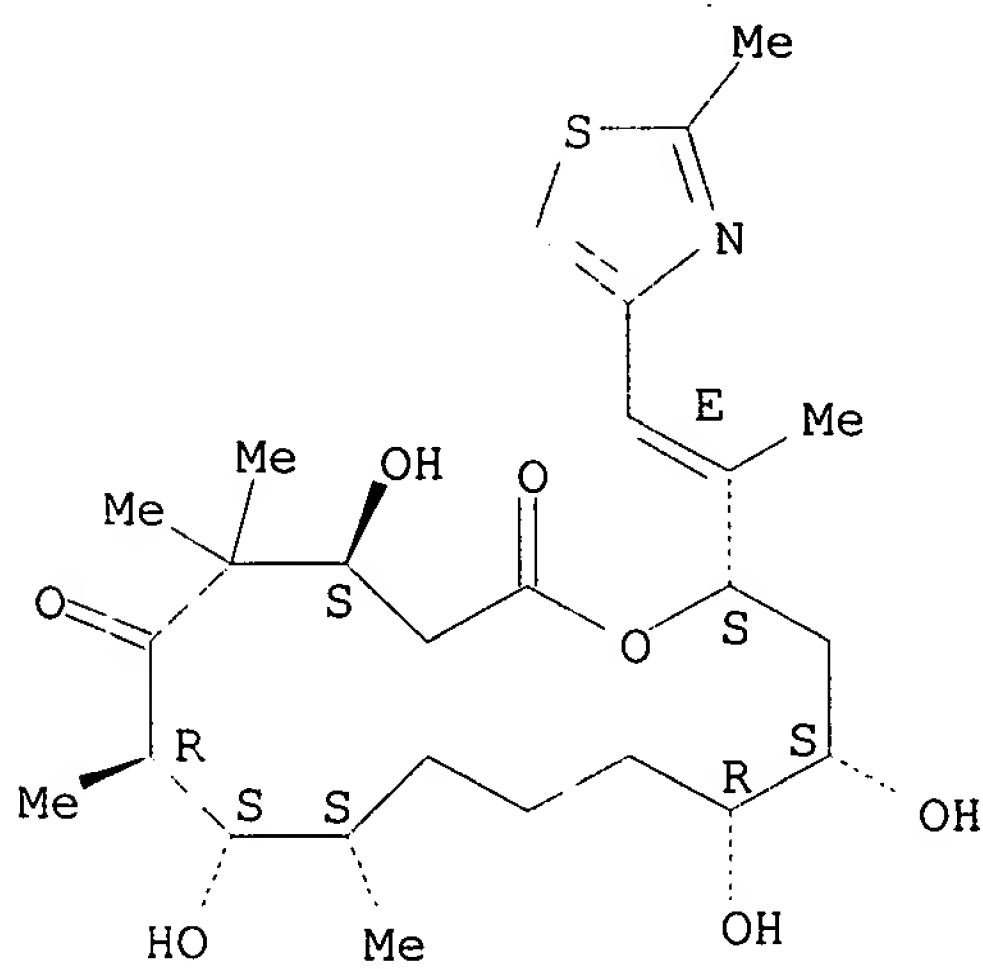
SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (isopropylidenation; product of regioselective dihydroxylation of the C12-C13 double bond in epothilone C)

RN 219555-43-8 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 4,8,13,14-tetrahydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13R,14S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

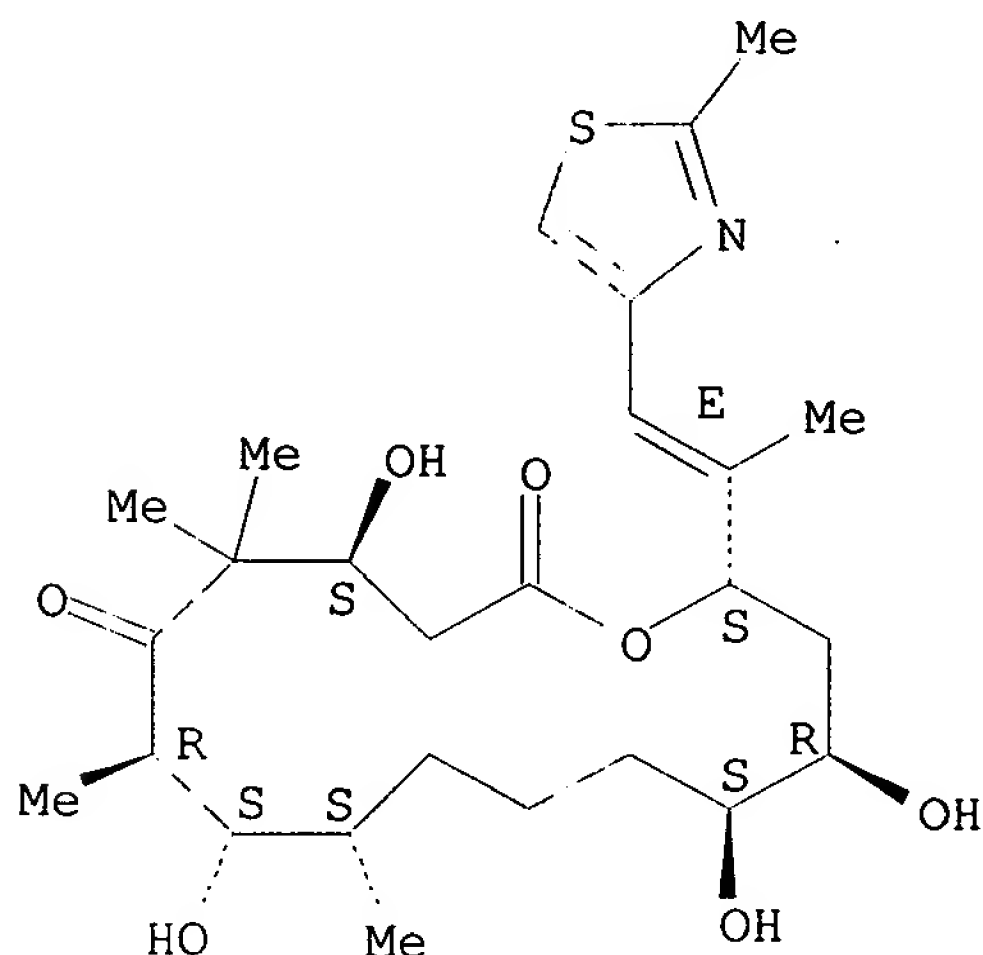
Double bond geometry as shown.



RN 219555-44-9 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 4,8,13,14-tetrahydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13S,14R,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



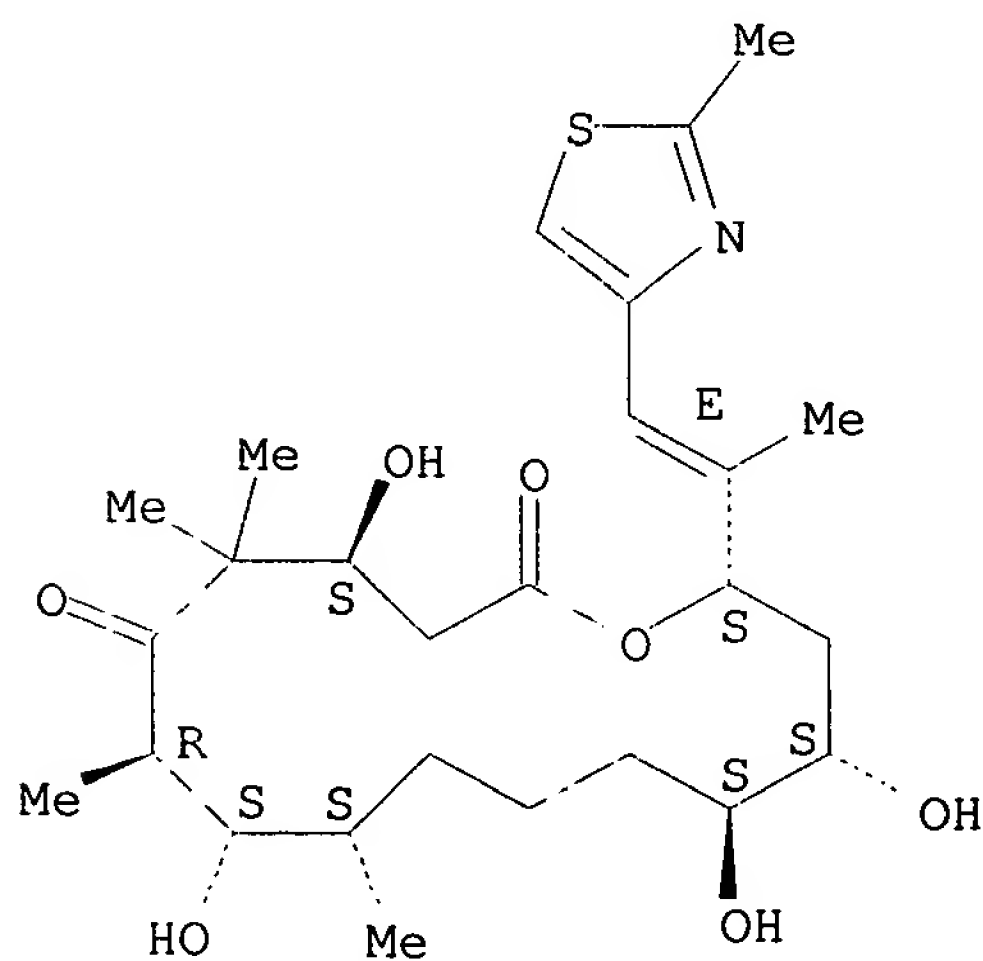
IT 219555-34-7P 219555-35-8P 219555-36-9P
219555-37-0P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(product of Bronstedt and Lewis acid catalyzed epoxide opening of
epothilone A)

RN 219555-34-7 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 4,8,13,14-tetrahydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13S,14S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

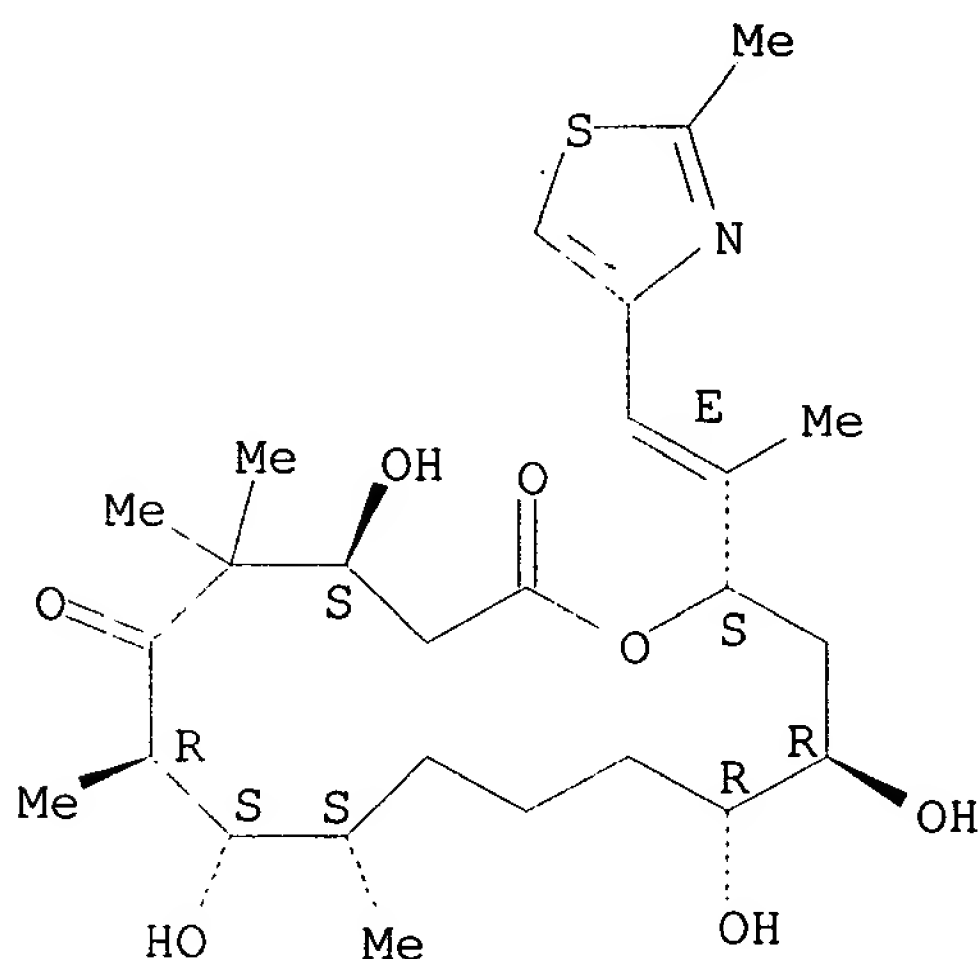


RN 219555-35-8 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 4,8,13,14-tetrahydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13R,14R,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



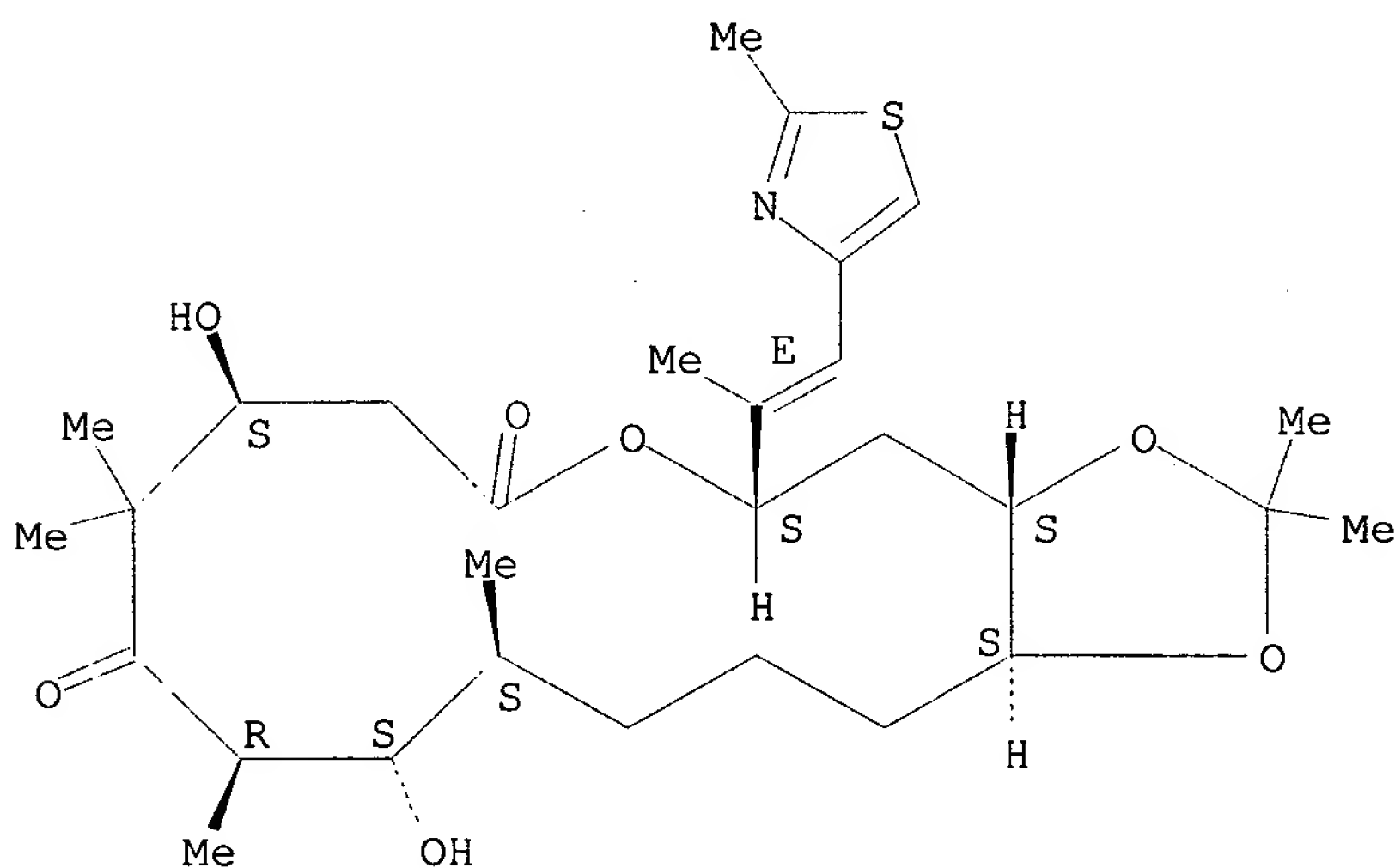
RN 219555-36-9 CAPLUS

CN 5H-1,3-Dioxolo[4,5-d]oxacyclohexadecin-7,11(4H,8H)-dione,

decahydro-9,13-dihydroxy-2,2,10,10,12,14-hexamethyl-5-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (3aS,5S,9S,12R,13S,14S,17aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

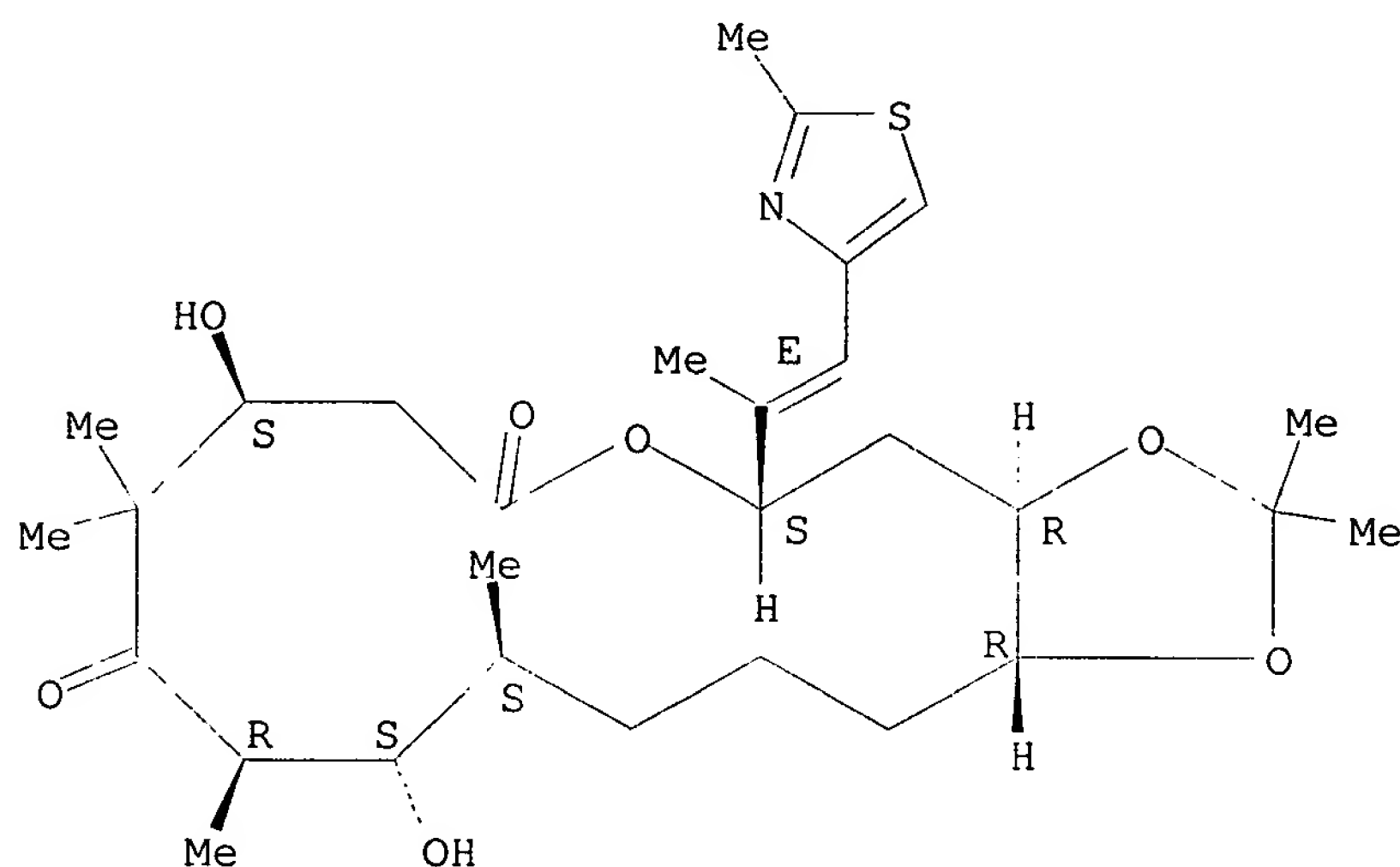


RN 219555-37-0 CAPLUS

CN 5H-1,3-Dioxolo[4,5-d]oxacyclohexadecin-7,11(4H,8H)-dione,

decahydro-9,13-dihydroxy-2,2,10,10,12,14-hexamethyl-5-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (3aR,5S,9S,12R,13S,14S,17aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



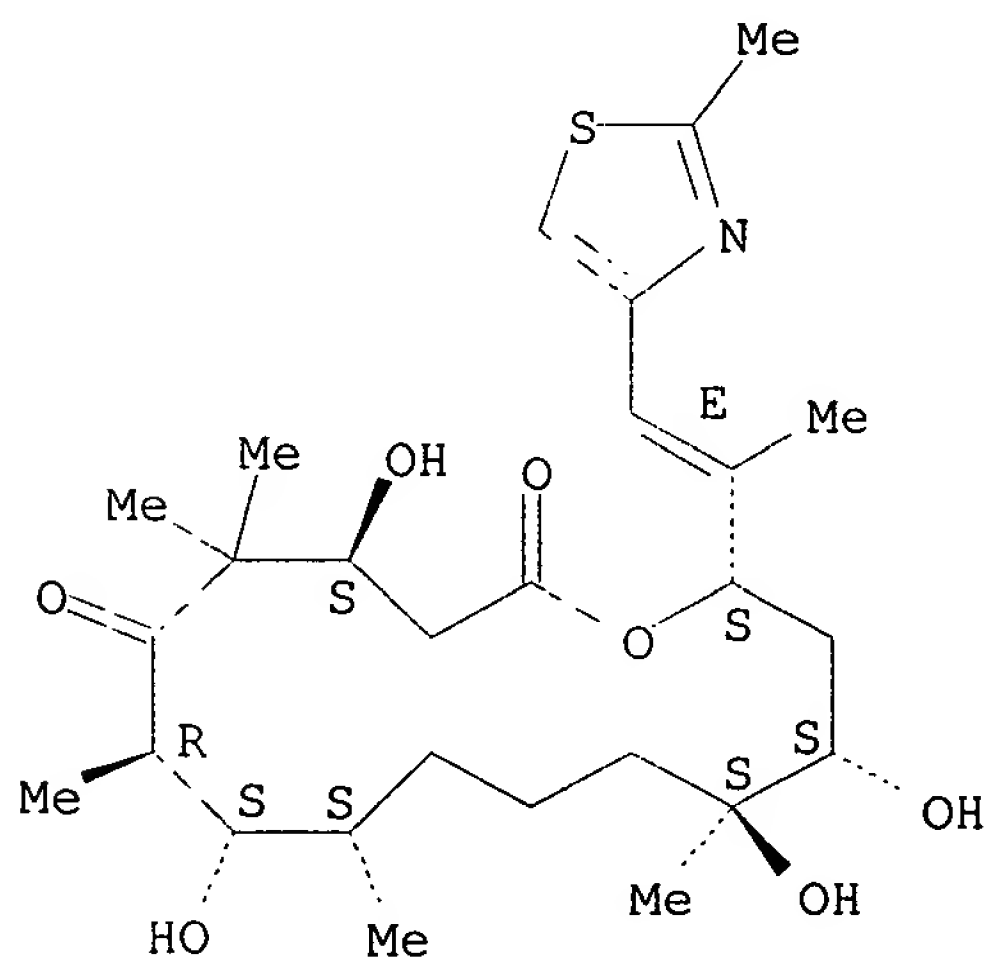
IT 219555-41-6P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(product of Bronstedt and Lewis acid catalyzed epoxide opening of epothilone B)

RN 219555-41-6 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 4,8,13,14-tetrahydroxy-5,5,7,9,13-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13S,14S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT 219555-28-9P 219555-29-0P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

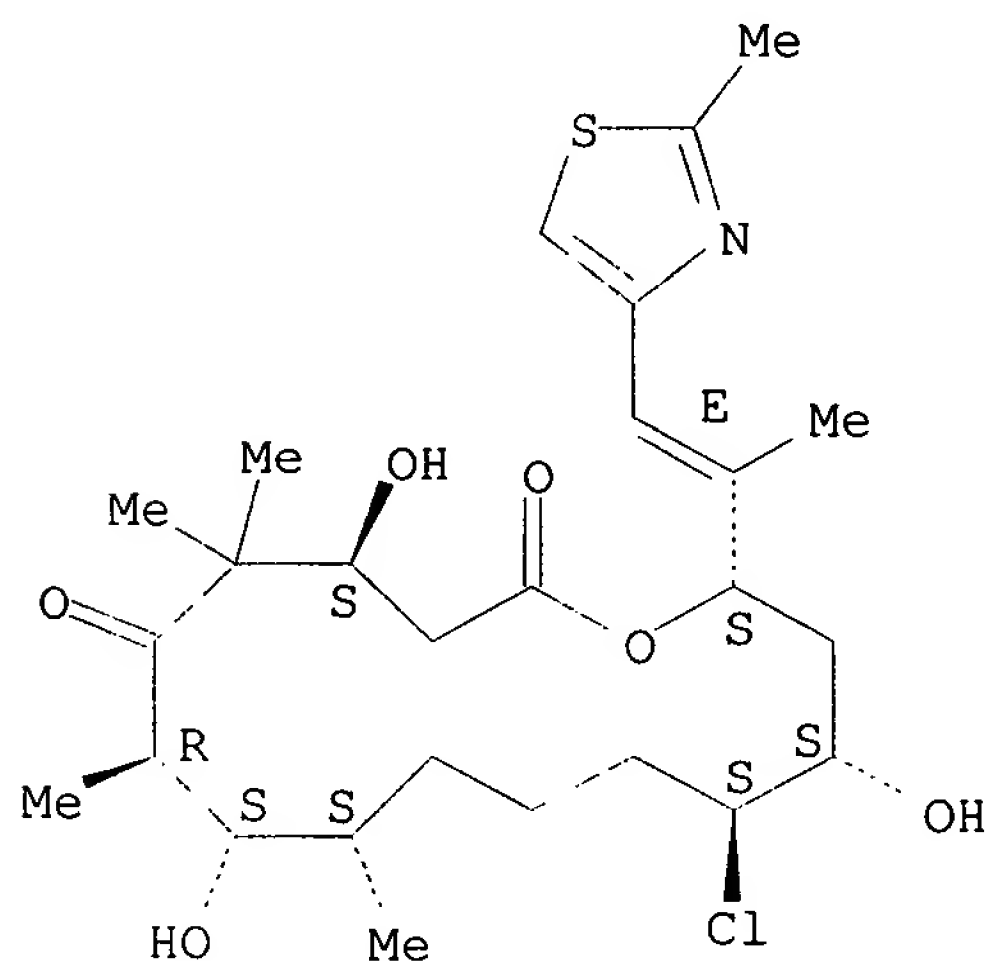
(product of epoxide opening of epothilone A with hydrochloric acid)

RN 219555-28-9 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 13-chloro-4,8,14-trihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13S,14S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

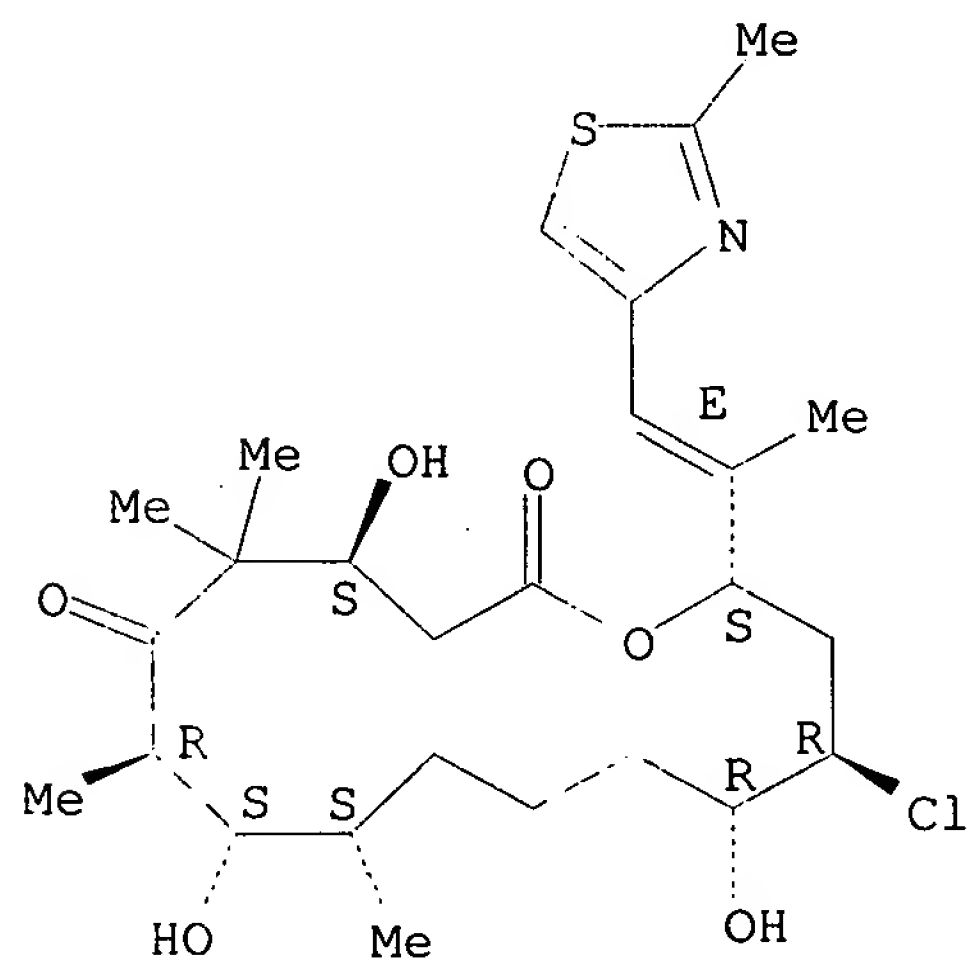


RN 219555-29-0 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 14-chloro-4,8,13-trihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13R,14R,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



IT 219555-30-3P

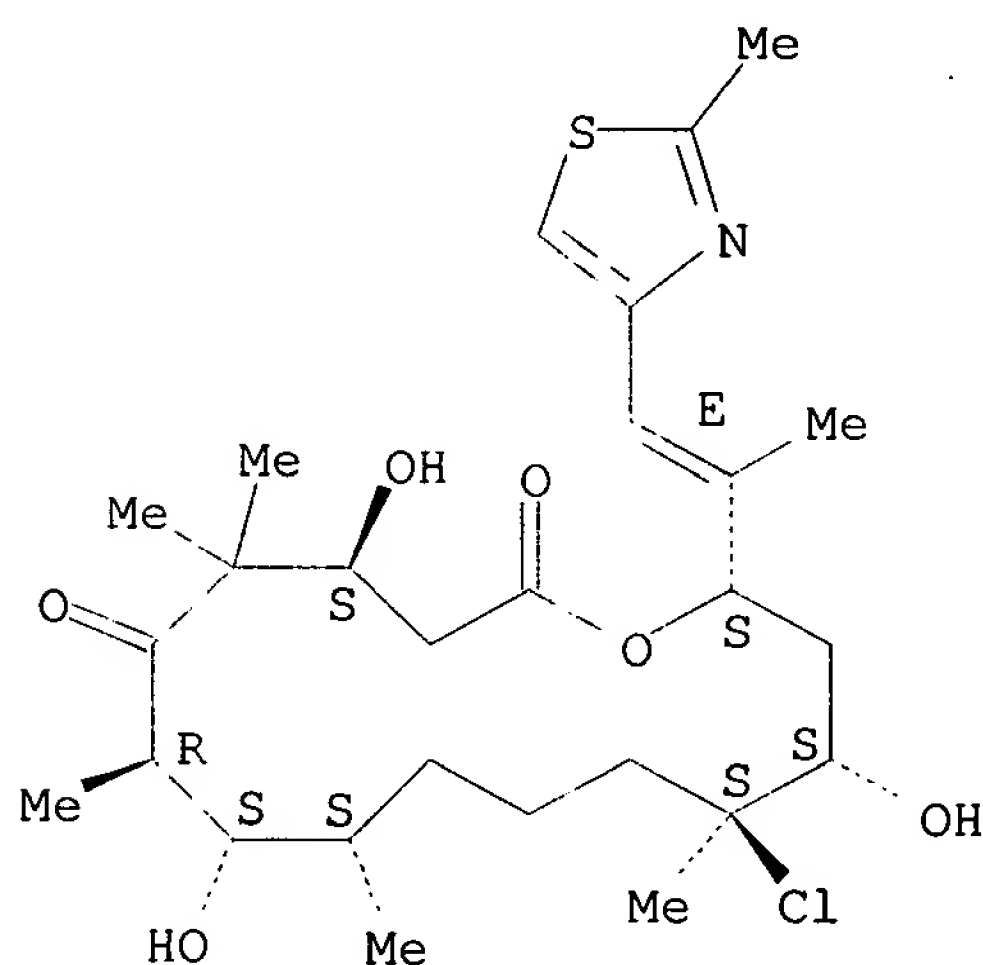
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(product of epoxide opening of epothilone B with hydrochloric acid)

RN 219555-30-3 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 13-chloro-4,8,14-trihydroxy-5,5,7,9,13-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13S,14S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



IT 219555-45-0P 219555-46-1P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(product of regioselective dihydroxylation of the C12-C13 double bond in epothilone C)

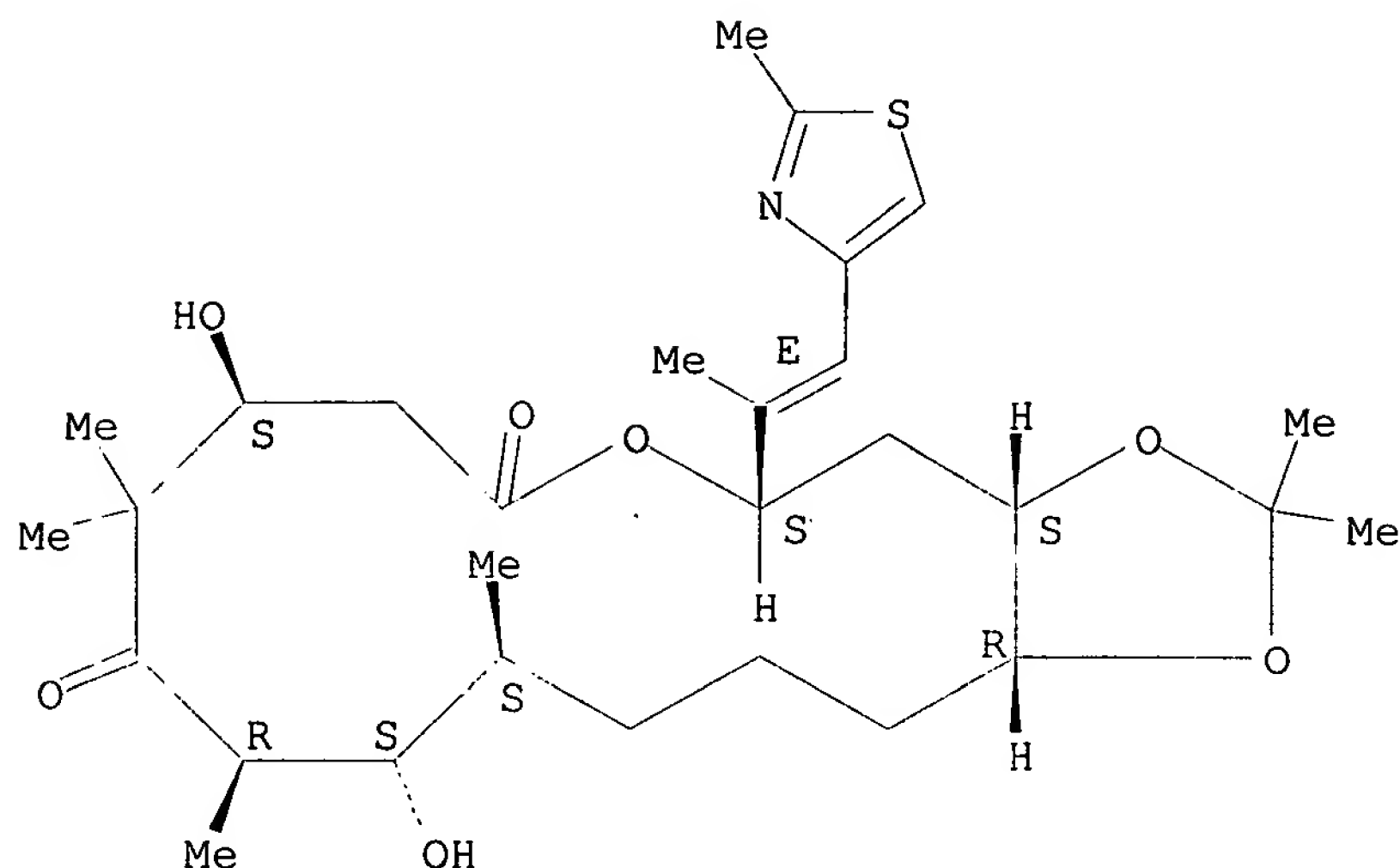
RN 219555-45-0 CAPLUS

CN 5H-1,3-Dioxolo[4,5-d]oxacyclohexadecin-7,11(4H,8H)-dione,

decahydro-9,13-dihydroxy-2,2,10,10,12,14-hexamethyl-5-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (3aS,5S,9S,12R,13S,14S,17aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



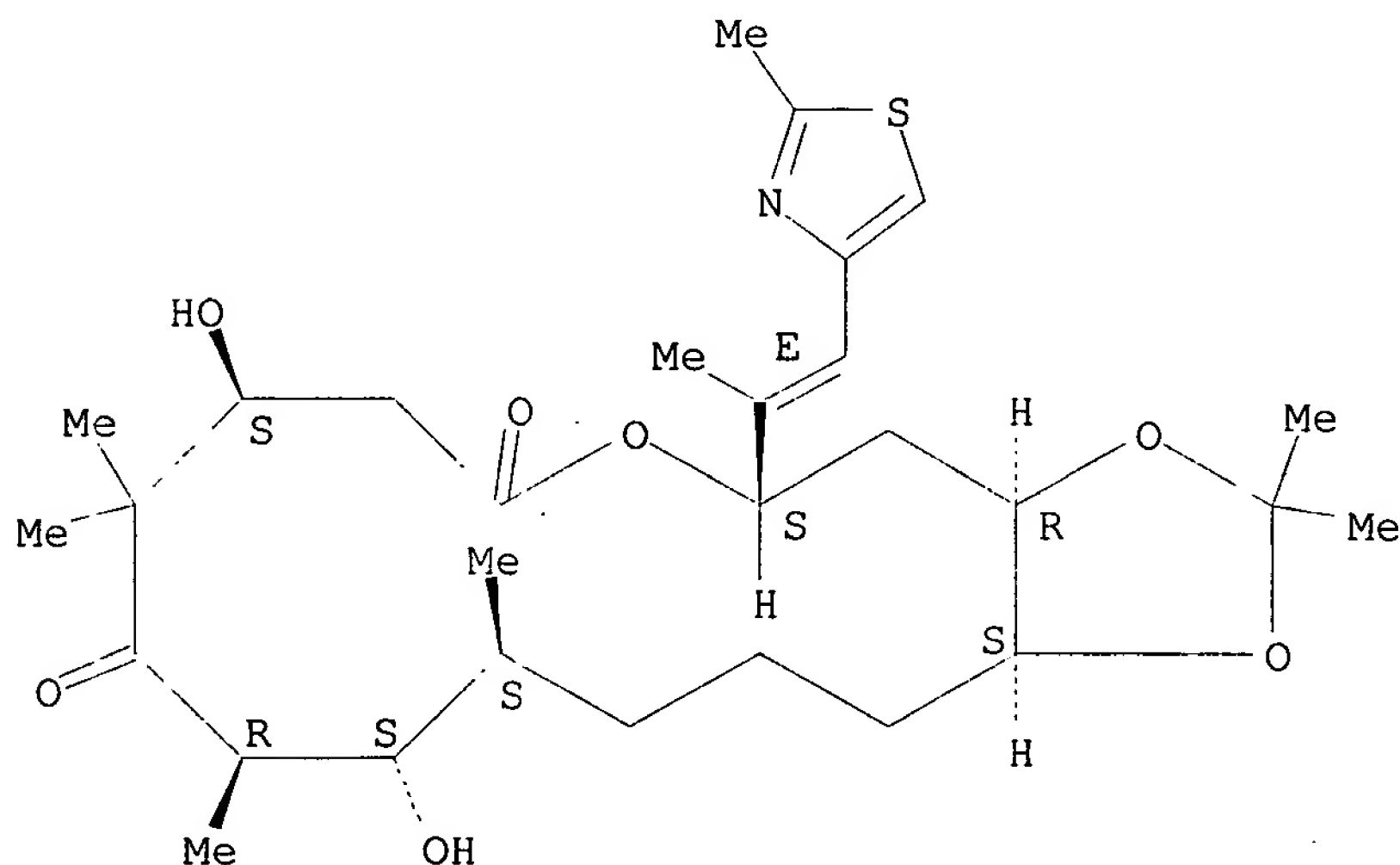
RN 219555-46-1 CAPLUS

CN 5H-1,3-Dioxolo[4,5-d]oxacyclohexadecin-7,11(4H,8H)-dione,

decahydro-9,13-dihydroxy-2,2,10,10,12,14-hexamethyl-5-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (3aR,5S,9S,12R,13S,14S,17aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



IT 219555-42-7P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

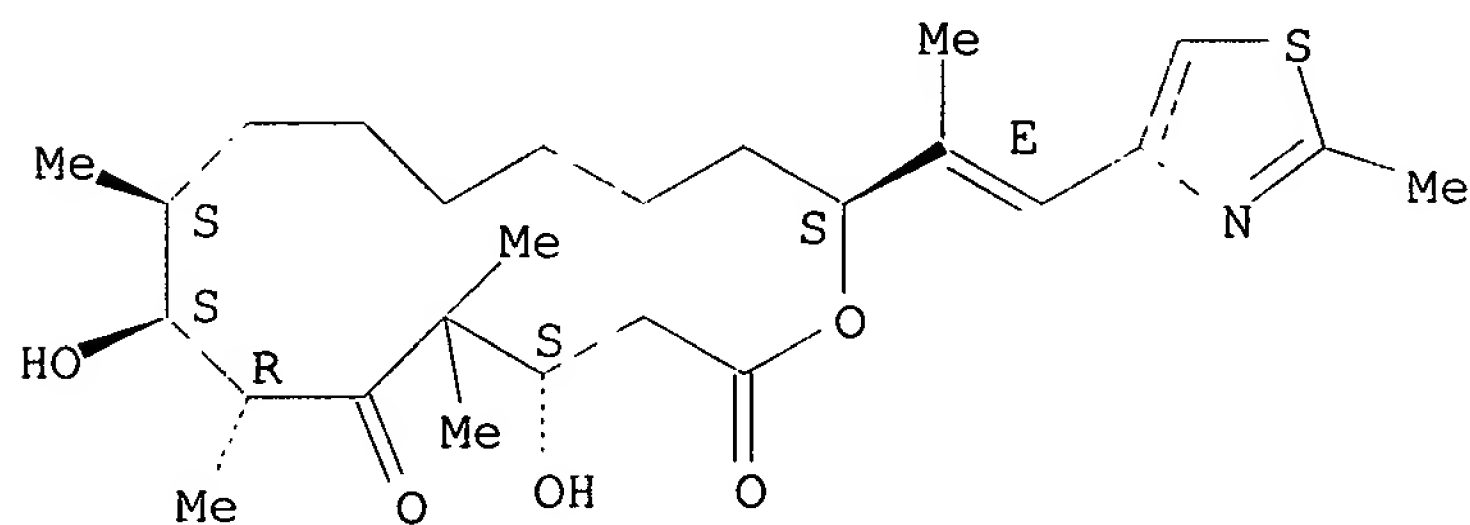
(product of regioselective redn. of the C12-C13 double bond in epothilone C)

RN 219555-42-7 CAPLUS

CN Oxacyclohexadecane-2,6-dione,
4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-

methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,16S)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



=> D BIB ABS HITSTR 8

L20 ANSWER 8 OF 28 CAPLUS COPYRIGHT 1999 ACS

AN 1998:760825 CAPLUS

DN 130:95406

TI Oxidative and reductive transformations of epothilone A

AU Sefkow, Michael; Kiffe, Michael; Schummer, Dietmar; Hofle, Gerhard

CS Gesellschaft fur Biotechnologische Forschung mbH, Abt, Naturstoffchemie, Braunschweig, D-38124, Germany

SO Bioorg. Med. Chem. Lett. (1998), 8(21), 3025-3030

CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 130:95406

AB The C7 hydroxy group of cytotoxic epothilone A was selectively oxidized using PDC. A selective oxidn. of the C3 hydroxy group was accomplished with Me2S/(PhCO2)2 after in situ protection of C7-OH. Redn. of

epothilone

A or of a C5, C7 dioxo deriv. with NaBH4 proceeded at the C5 carbonyl group. Oxidn. and hydrogenation of the C16-C17 double bond proved to be difficult but it was easily cleaved with ozone and the resulting keto deriv. was transformed to epothilone analogs with different side chains.

IT 219557-06-9P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(oxidative and reductive transformations of epothilone A)

RN 219557-06-9 CAPLUS

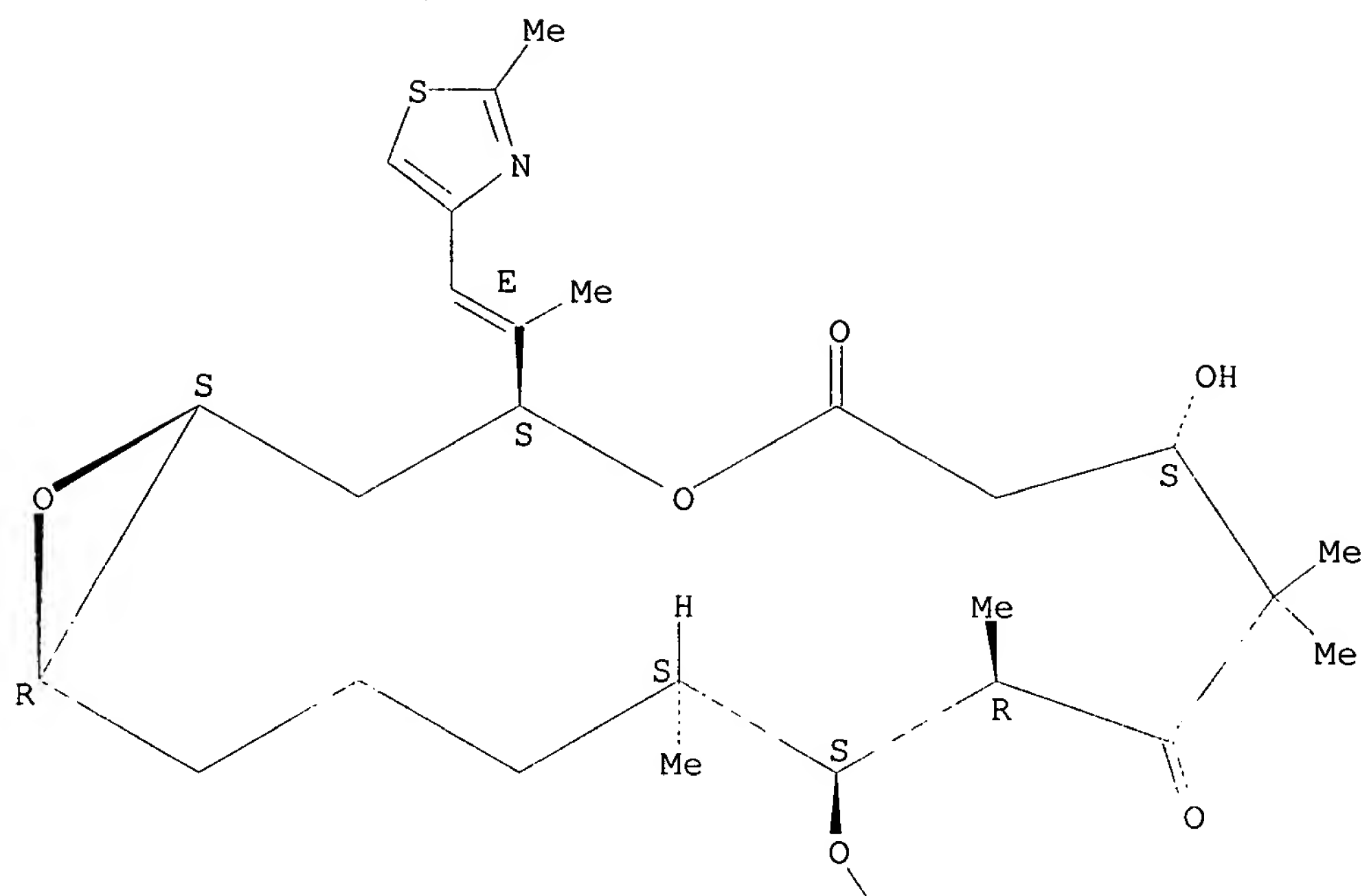
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7-hydroxy-11-[(4-

methoxyphenyl)methoxy]-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

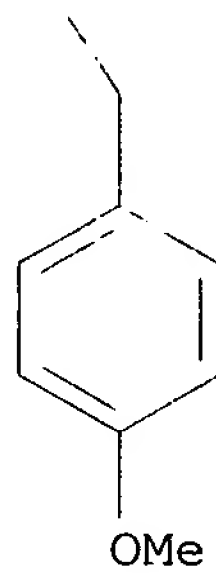
Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A



PAGE 2-A



=> D BIB ABS HITSTR 9

L20 ANSWER 9 OF 28 CAPLUS COPYRIGHT 1999 ACS

AN 1998:608619 CAPLUS

DN 129:216463

TI Procedure for the preparation of epothilones with a modified side chain

IN Hofle, Gerhard; Sefkow, Michael

PA Gesellschaft Fur Biotechnologische Forschung m.b.H. (Gbf), Germany

SO PCT Int. Appl., 20 pp.

CODEN: PIXXD2

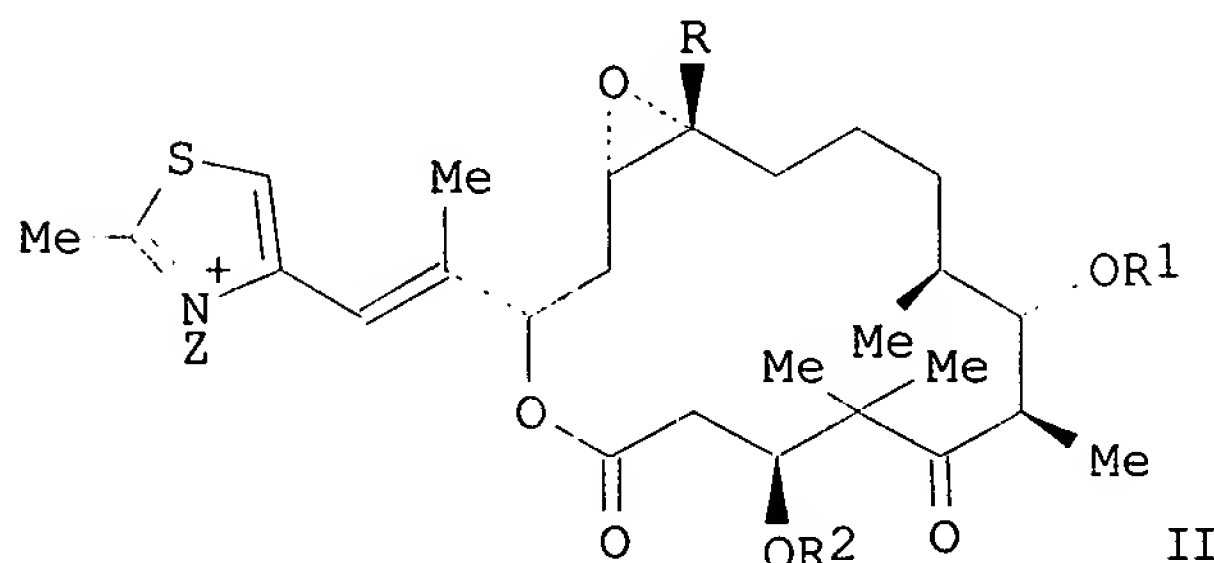
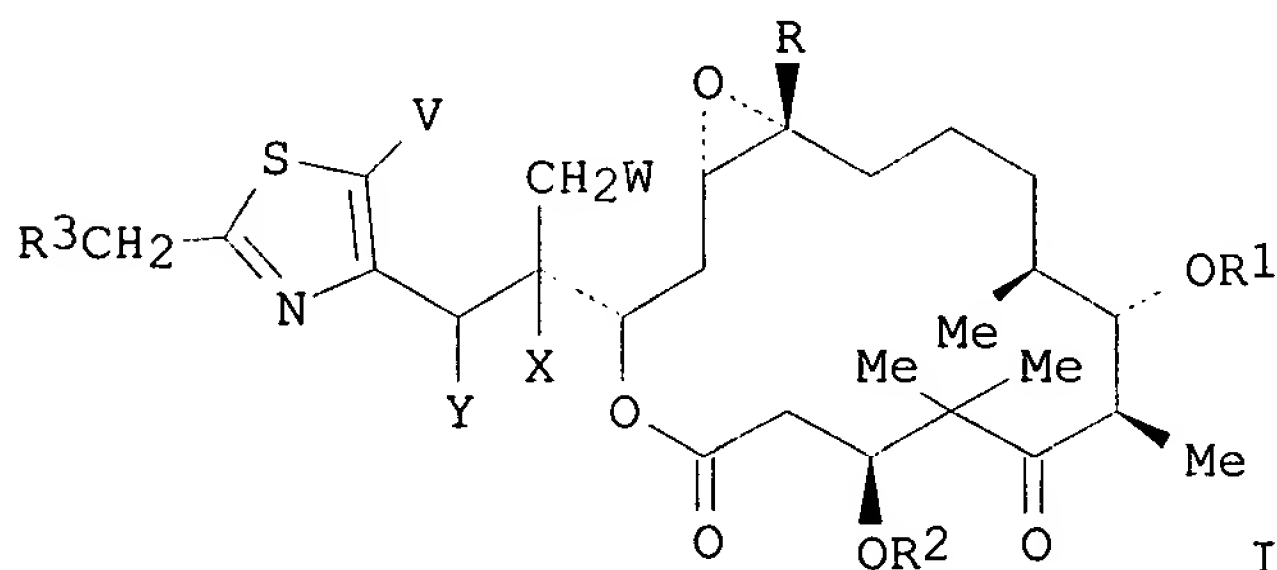
DT Patent

LA German

FAN.CNT 1

PROVISO

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9838192	A1	19980903	WO 98-EP1060	19980225
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9867249	A1	19980918	AU 98-67249	19980225
PRAI	DE 97-19707505		19970225		
	WO 98-EP1060		19980225		
OS	CASREACT 129:216463				
GI					



AB A procedure for the prepn. of epothilones I (R = H, Me; R1, R2 = H; R3 = H, OH, OAc; V = H, Br, Me; W = H, OH; XY = bond, O; X = H, OH; Y = H), II (Z = O-) and II.cntdot.BF4- (Z = OMe) is characterized by, hydrogenation of the C(16)-C(17) double bond, halogen addn. to the C(16)-C(17) double bond, or epoxidn. of the C(16)-C(17) double bond followed by redn. to the alc. Thus, epothilone A (I; R = R1 = R2 = R3 = V = W = H, XY = bond) was treated with dioxirane in acetone to give 27% of epoxide I (R = R1 = R2 = R3 = V = W = H, XY = O) and 16% N-oxide II (R = R1 = R2 = H, Z = O); epoxide I (R = R1 = R2 = R3 = V = W = H, XY = O) was then treated with H2 in EtOH contg. catalytic Pd/C to give alc. I (R = R1 = R2 = R3 = V = W =

Y

= H, X = OH) while N-oxide II was treated with Ac2O in CH2Cl2 contg. 2,6-di(tert-butyl)pyridine to give acetate I (R = R1 = R2 = V = W = H, R3 = OAc, XY = bond). Alternatively, epothilone A (I; R = R1 = R2 = R3 = V

=

W = H, XY = bond) was treated with BuLi in hexane followed N-bromosuccinimide in THF to give bromide I (R = R1 = R2 = R3 = W = H, XY = bond, V = Br).

IT 212321-22-7P, Epothilone A N-oxide 212321-23-8P,

Epothilone E acetate

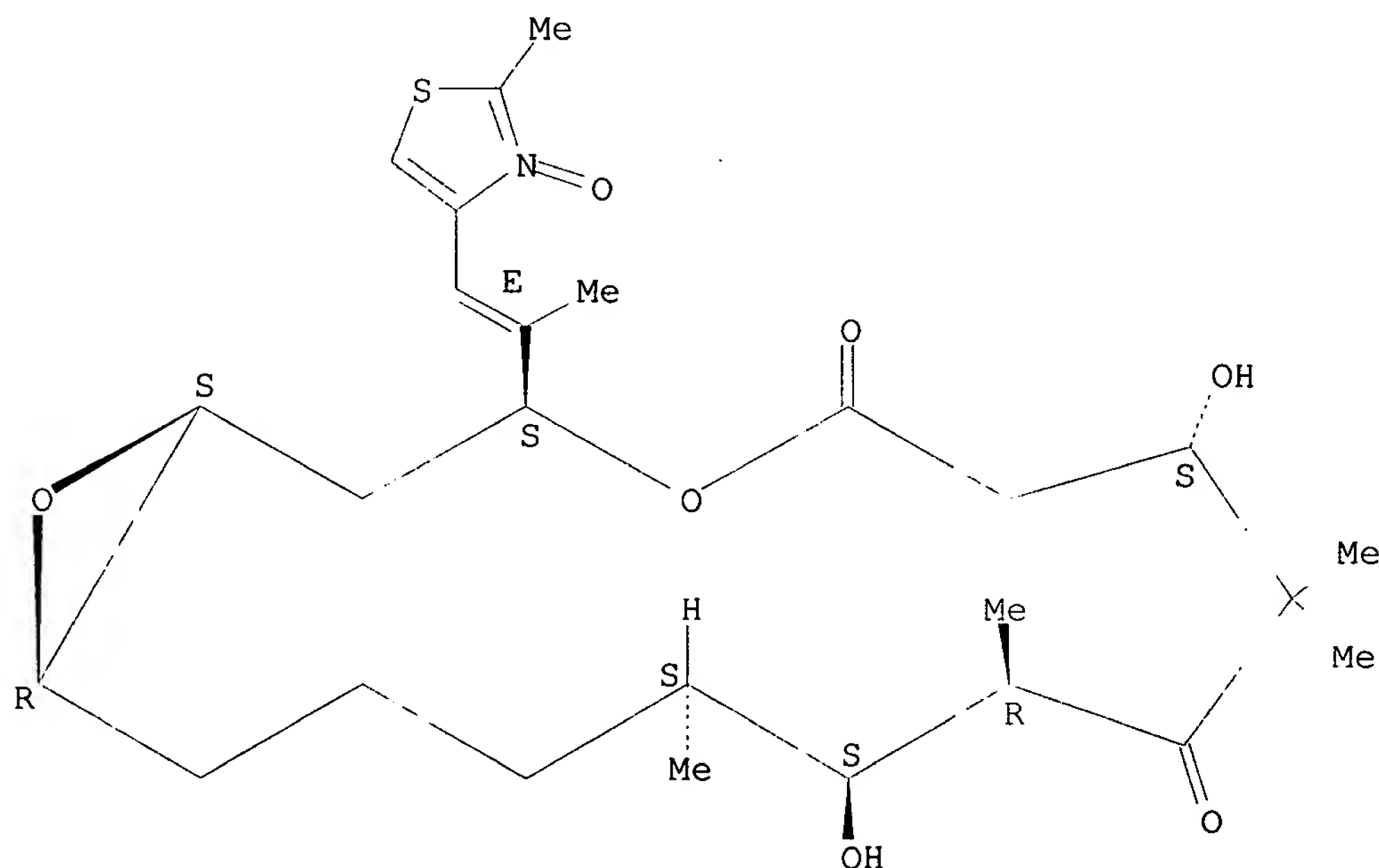
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of epothilones with a modified side chain)

RN 212321-22-7 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-3-oxido-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



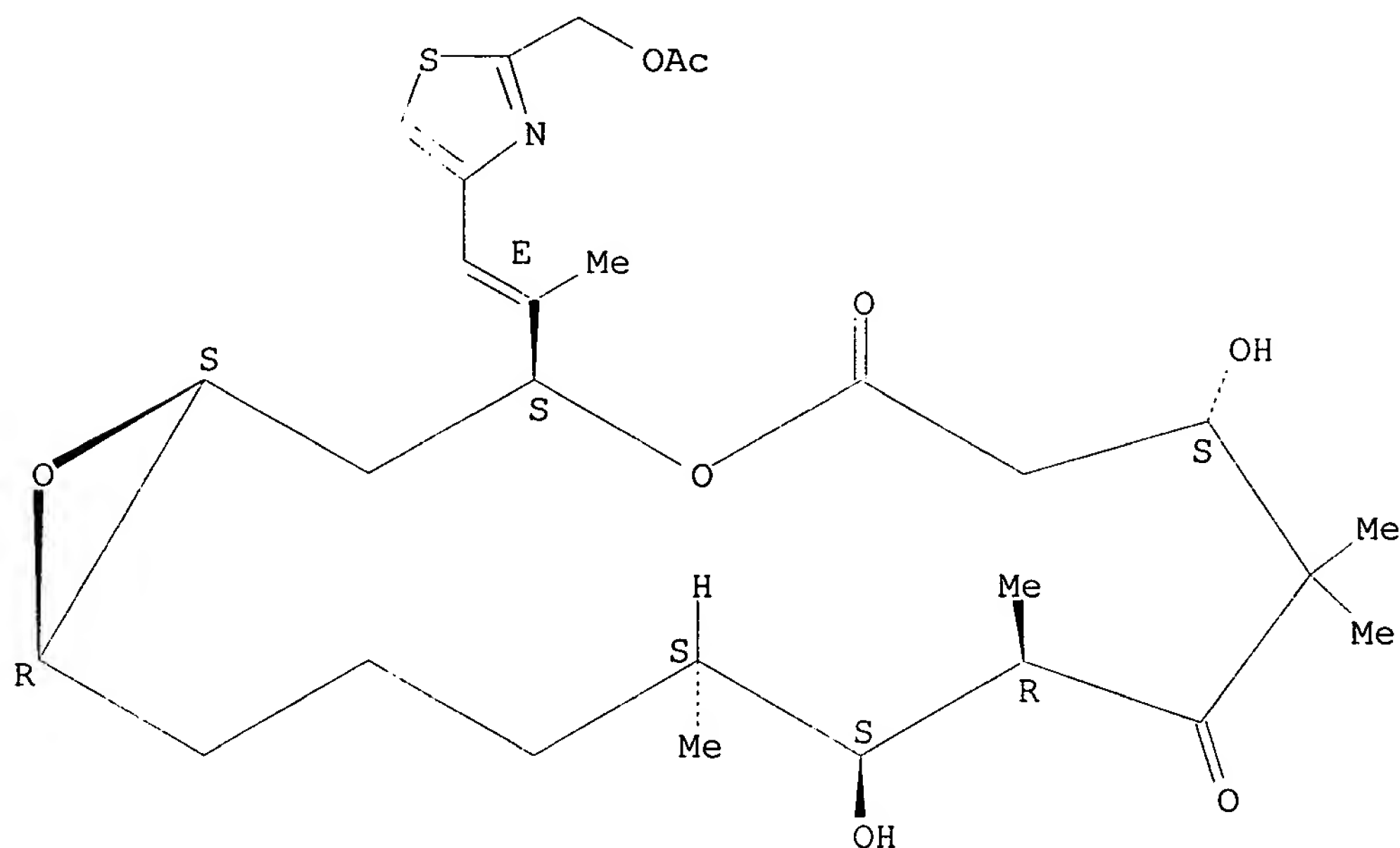
RN 212321-23-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 3-[(1E)-2-[2-

[(acetyloxy)methyl]-4-thiazolyl]-1-methylethenyl]-7,11-dihydroxy-8,8,10,12-

tetramethyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

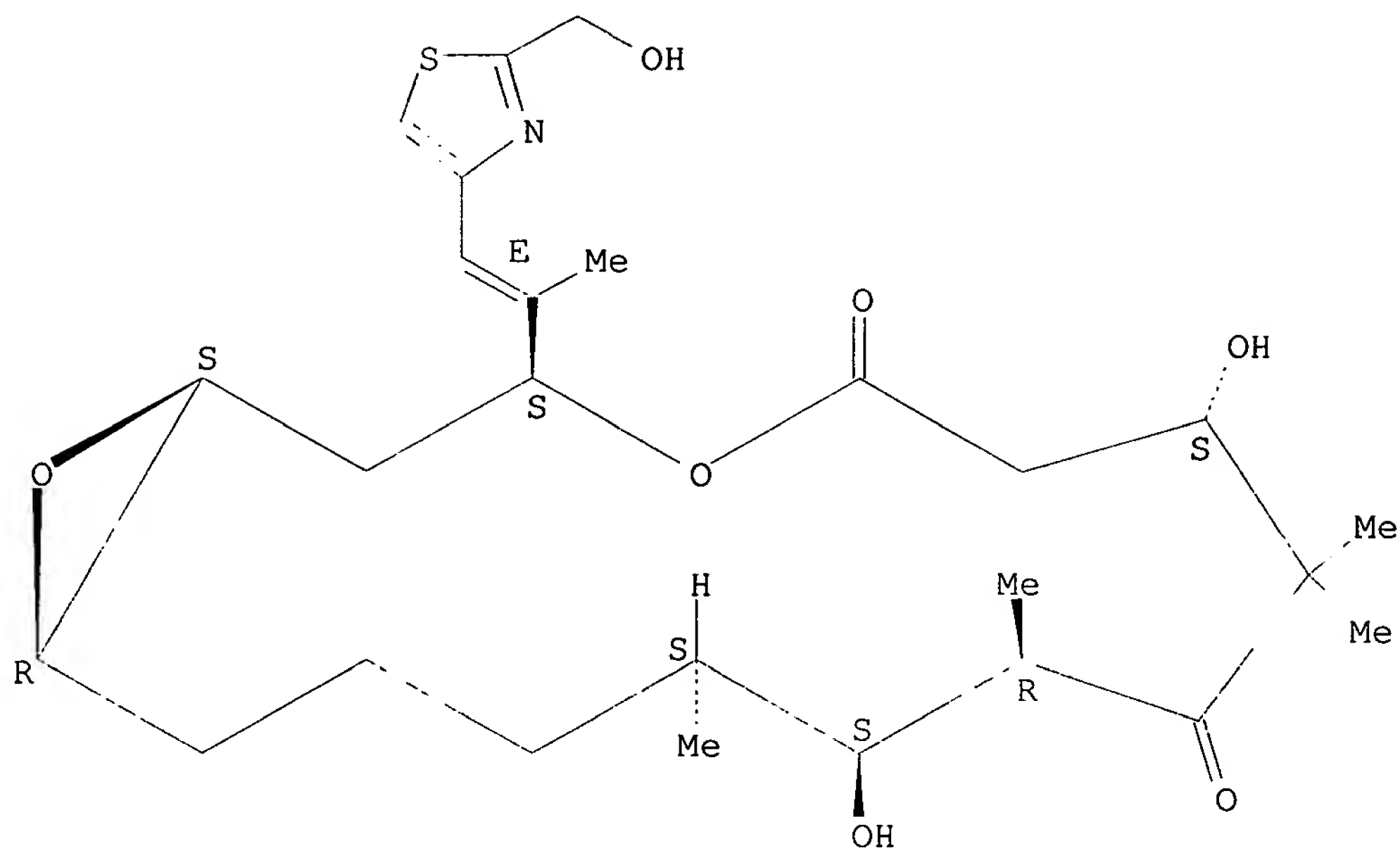


IT 201049-37-8P, Epothilone E 208518-52-9P, Epothilone F
212321-24-9P, 19-Bromoepothilone A 212321-27-2P,
19-Methylepothilone A
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of epothilones with a modified side chain)

RN 201049-37-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3-[(1E)-2-
[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-8,8,10,12-tetramethyl-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

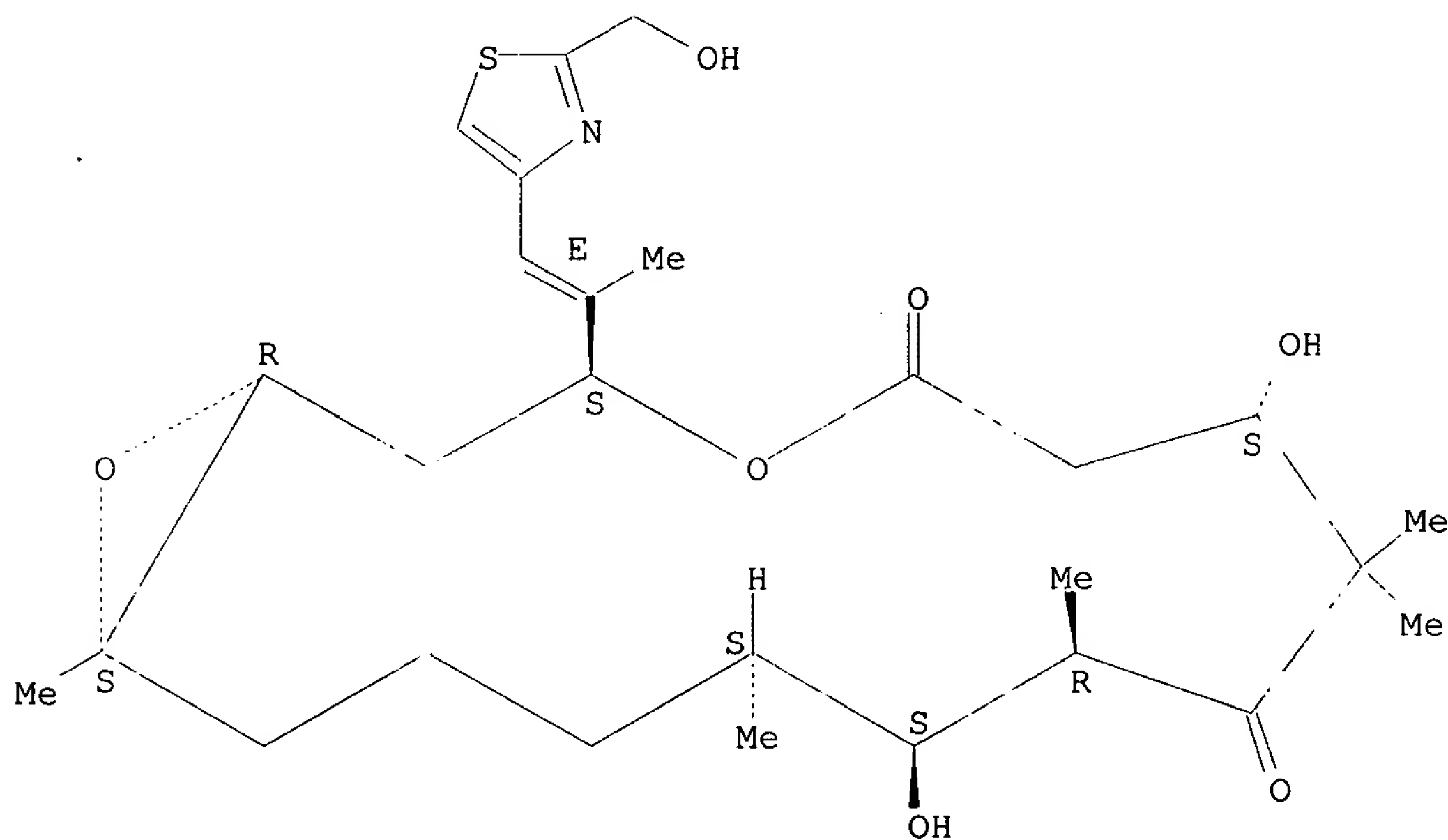
Absolute stereochemistry.
Double bond geometry as shown.



RN 208518-52-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3-[(1E)-2-[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-8,8,10,12,16-pentamethyl-, (1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

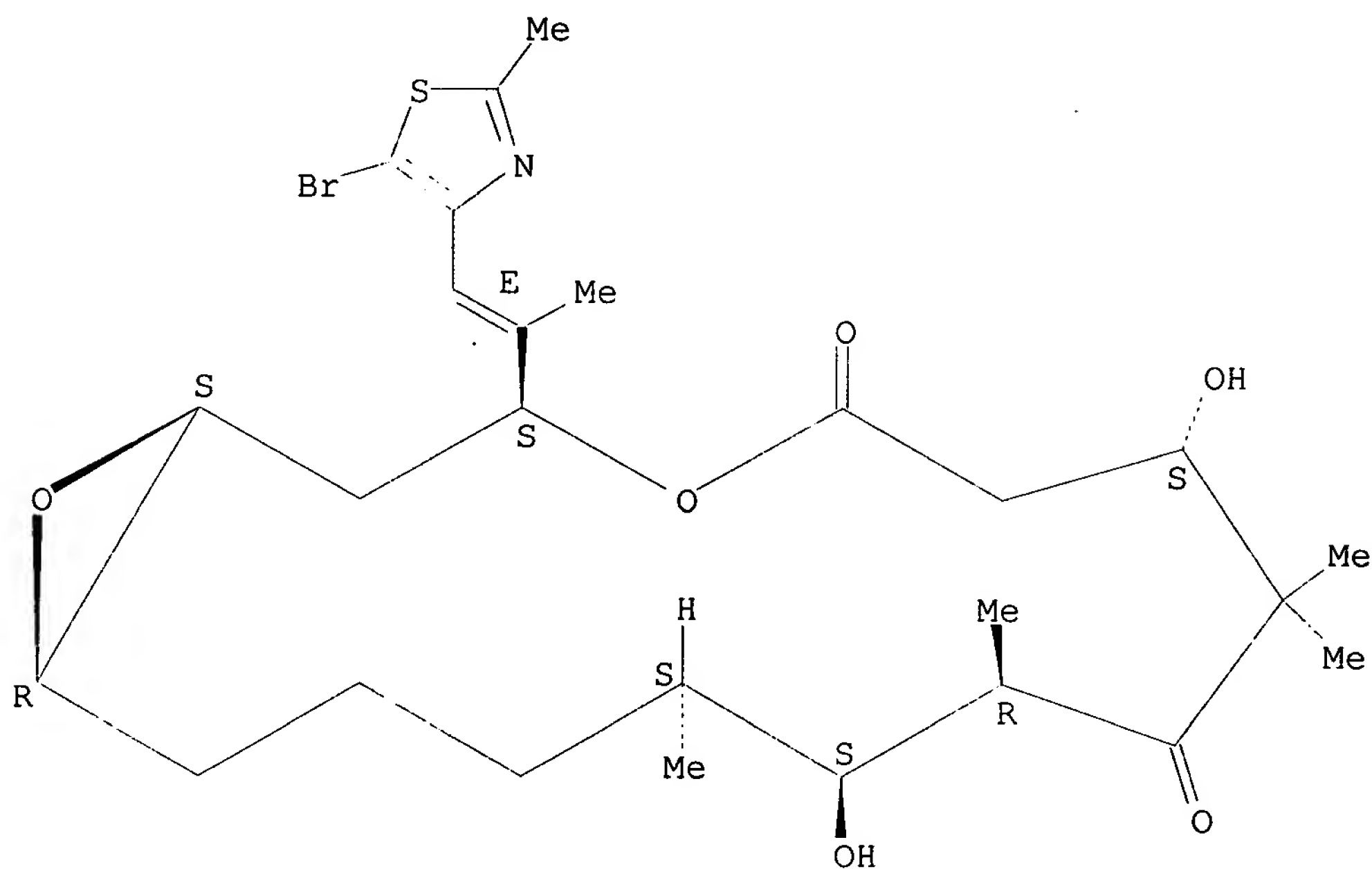


RN 212321-24-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 3-[(1E)-2-(5-bromo-2-methyl-4-thiazolyl)-1-methylethenyl]-7,11-dihydroxy-8,8,10,12-tetramethyl-, (1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

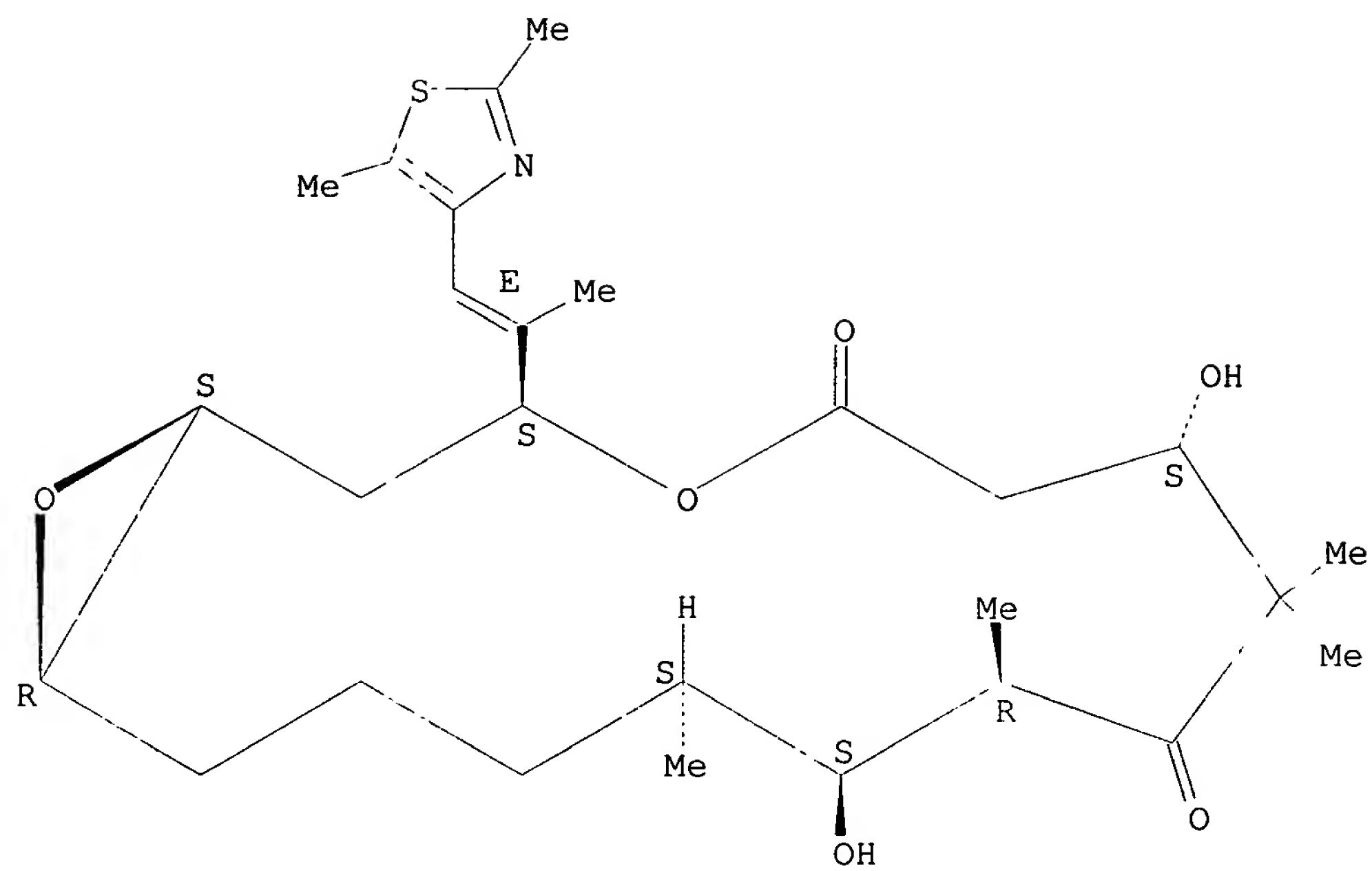
, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 212321-27-2 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione,
3-[(1E)-2-(2,5-dimethyl-4-
thiazolyl)-1-methylethenyl]-7,11-dihydroxy-8,8,10,12-tetramethyl-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



=> D BIB ABS HITSTR 10

L20 ANSWER 10 OF 28 CAPLUS COPYRIGHT 1999 ACS

AN 1998:503765 CAPLUS

DN 129:244965

TI Synthesis and biological properties of C12,13-cyclopropyl-epothilone A and

related epothilones

AU Nicolaou, K. C.; Finlay, M. Ray V.; Ninkovic, Sacha; King, N. Paul; He, Yun; Li, Tianhu; Sarabia, Francisco; Vourloumis, Dionisios

CS Dep. Chemistry, The Skaggs Inst. Chem. Biol., The Scripps Res. Inst., La Jolla, CA, 92037, USA

SO Chem. Biol. (1998), 5(7), 365-372

CODEN: CBOLE2; ISSN: 1074-5521

PB Current Biology Ltd.

DT Journal

LA English

OS CASREACT 129:244965

AB Background: The epothilones are natural substances that are potently cytotoxic, having an almost identical mode of action to Taxol as tubulin-polymn. and microtubule-stabilizing agents. The development of detailed structure-activity relationships for these compds. and the further elucidation of their mechanism of action is of high priority. Results: The chem. synthesis of the C12,13-cyclopropyl analog of epothilone A and its C12,13-trans-diastereoisomer has been accomplished. These compds. and several other epothilone analogs have been screened for their ability to induce tubulin polymn. and death of a no. of tumor cells.

Several interesting structure-activity trends within this family of compds. were identified. Conclusions: The results of the biol. tests conducted in this study have demonstrated that, although a no. of positions on the epothilone skeleton are amenable to modification without significant loss of biol. activity, the replacement of the epoxide moiety of epothilone A with a cyclopropyl group leads to total loss of activity.

IT 213312-54-0P 213312-56-2P

RL: BAC (Biological activity or effector, except adverse); RCT (Reactant);

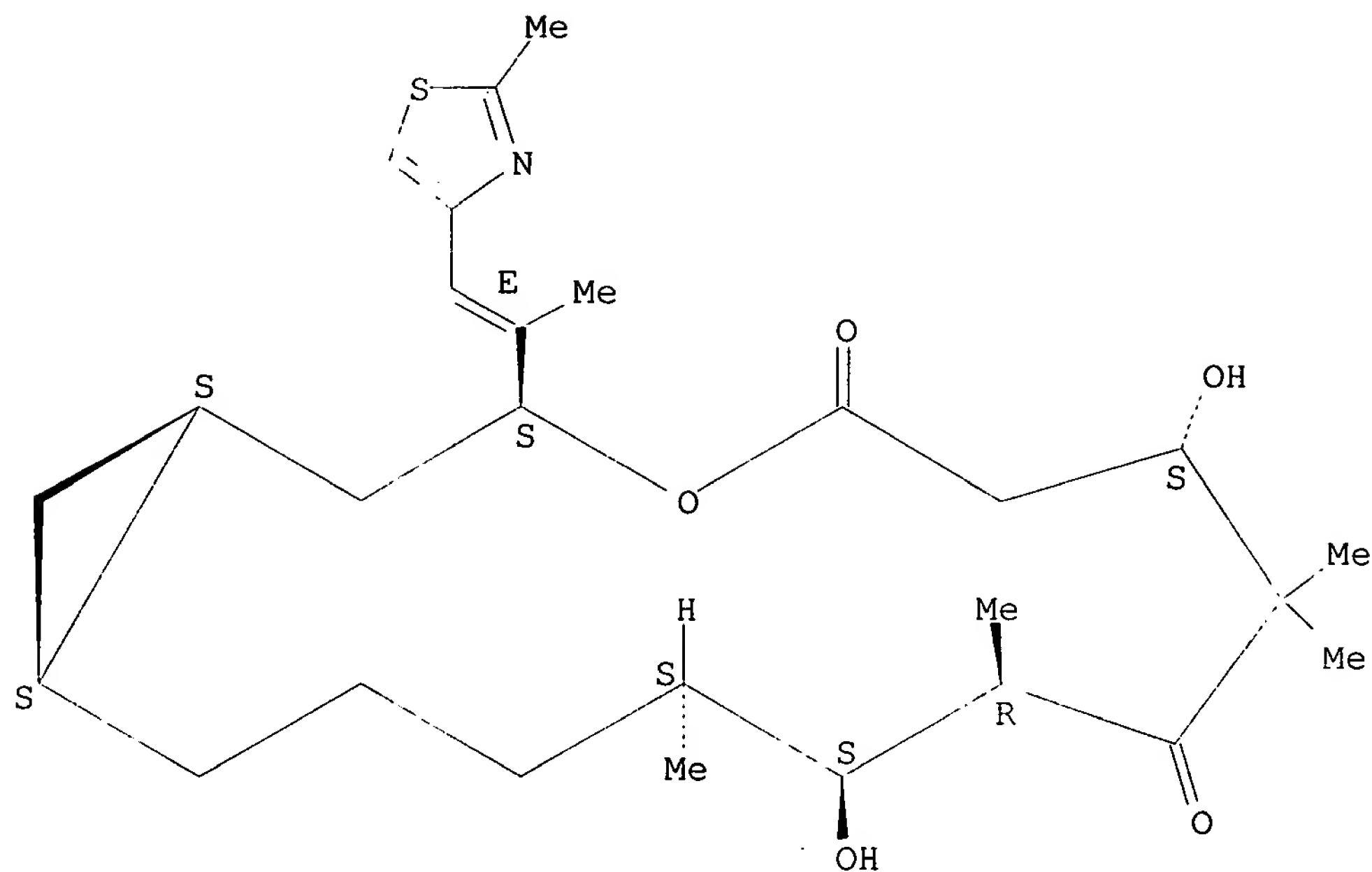
SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (synthesis and biol. properties of C12,13-cyclopropyl-epothilone A and related epothilones)

RN 213312-54-0 CAPLUS

CN 4-Oxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

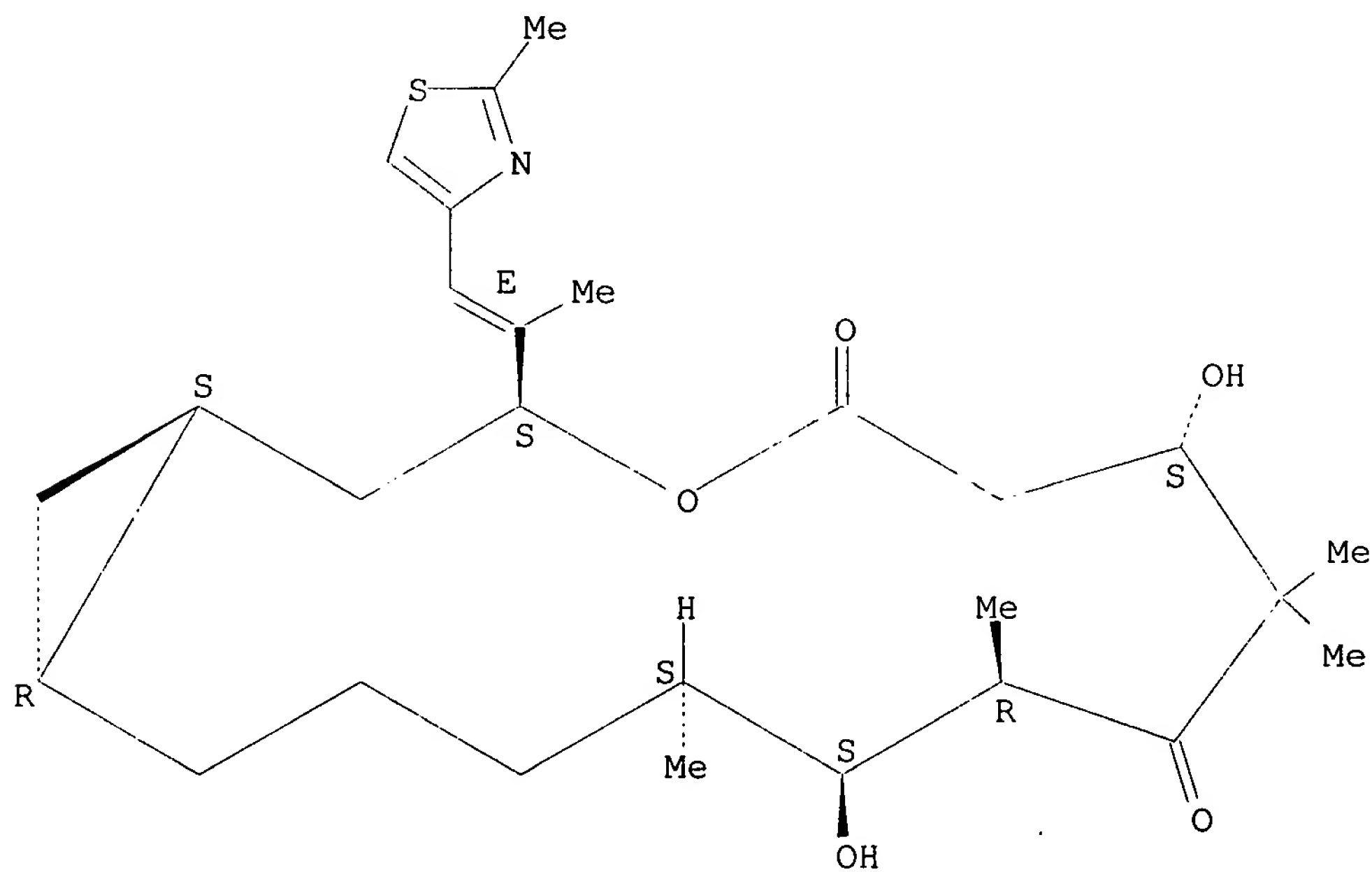
Double bond geometry as shown.



RN 213312-56-2 CAPLUS

CN 4-Oxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT 213312-66-4

RL: RCT (Reactant)

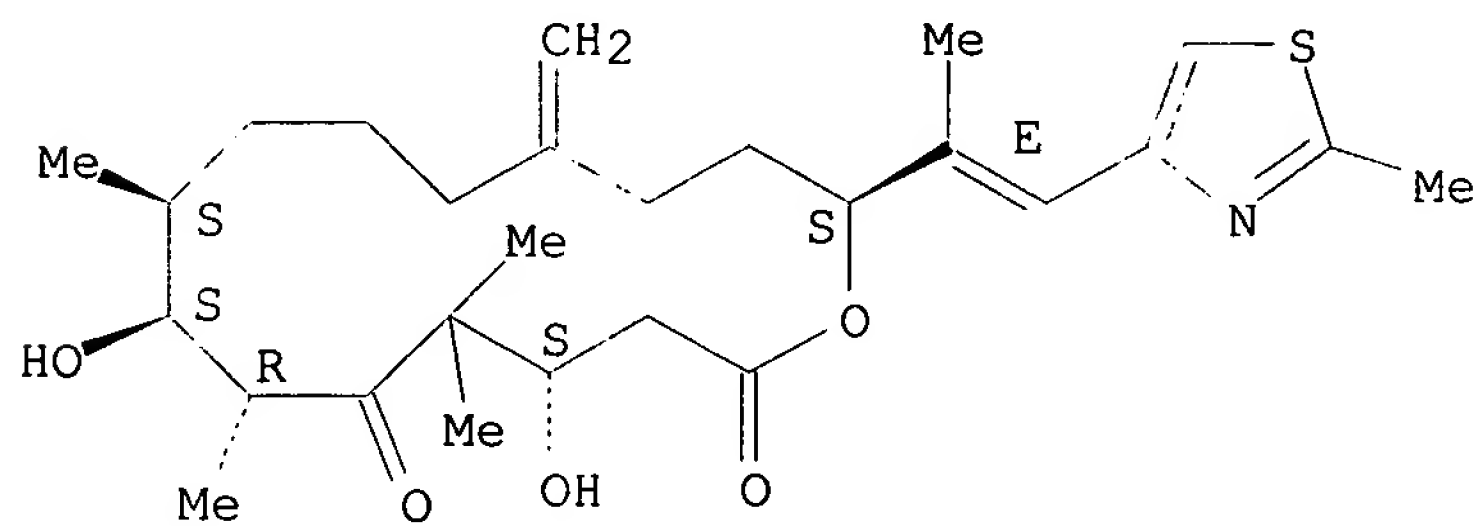
(synthesis and biol. properties of C12,13-cyclopropyl-epothilone A and related epothilones)

RN 213312-66-4 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-13-methylene-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

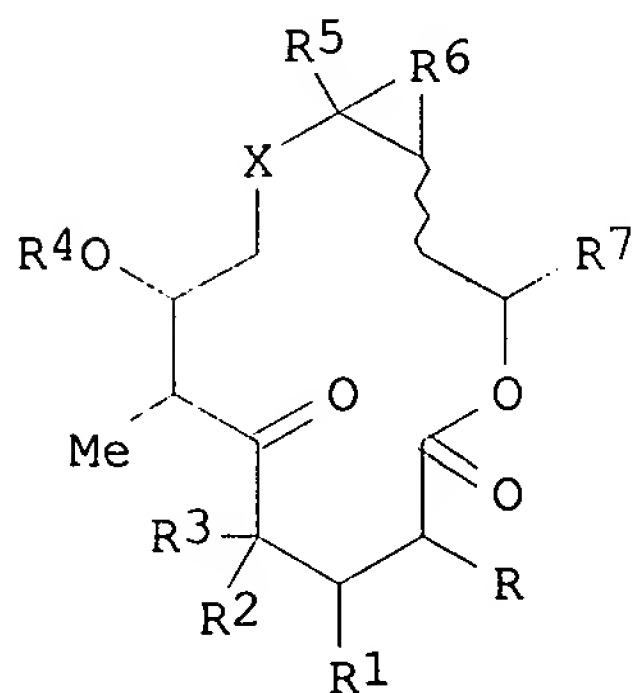
Double bond geometry as shown.



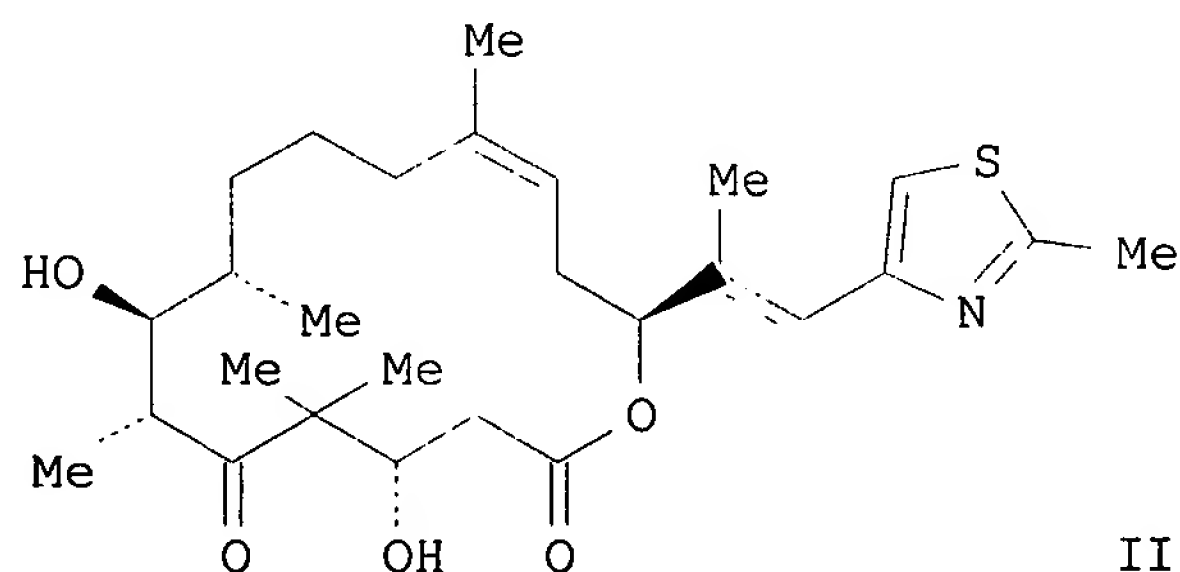
=> D BIB ABS HITSTR 11

L20 ANSWER 11 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1998:405952 CAPLUS
DN 129:81625
TI Preparation of epothilone analogs as anticancer agents
IN Nicolaou, Costa Kyriacos; He, Yun; Ninkovic, Sacha; Pastor, Joaquin;
Roschangar, Frank; Sarabia, Francisco; Vallberg, Hans; Vourloumis,
Dionisios; Winssinger, Nicolas; Yang, Zhen; King, Nigel Paul; et al.
PA Novartis A.-G., Switz.; Scripps Research Institute
SO PCT Int. Appl., 213 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9825929	A1	19980618	WO 97-EP7011	19971212
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9857577	A1	19980703	AU 98-57577	19971212
PRAI	US 96-32864		19961213		
	US 97-856533		19970514		
	US 97-923869		19970904		
	WO 97-EP7011		19971212		
OS	MARPAT 129:81625				
GI					



I



II

AB Epothilone A, epothilone B, analogs of epothilone and libraries of epothilone analogs of formula I [X = (CH₂)_n; n = 1-5; R₁ = OH, OMe, absent; R₂, R₃ = H, CH₂, Me; R₄ = H, Me, protecting group; R₅ = H, Me, CHO, (substituted) CO₂H, etc.; R₆ = O, CH₂, absent; R₇ = thiazolealkyl, etc.] are synthesized. Epothilone A and B are known anticancer agents

that derive their anticancer activity by the prevention of mitosis through the induction and stabilization of microtubulin assembly. Several of the analogs are demonstrated to have a superior cytotoxic activity as compared to epothilone A or epothilone B as demonstrated by their enhanced ability to induce the polymn. and stabilization of microtubules. Thus, II was prepd. and was shown to induce tubulin polymn. at 94% relative to GTP, and

inhibit carcinoma cell growth.

IT 188260-10-8P 189453-40-5P 193071-86-2P

193146-35-9P 201136-80-3P

RL: BAC (Biological activity or effector, except adverse); RCT (Reactant);

SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

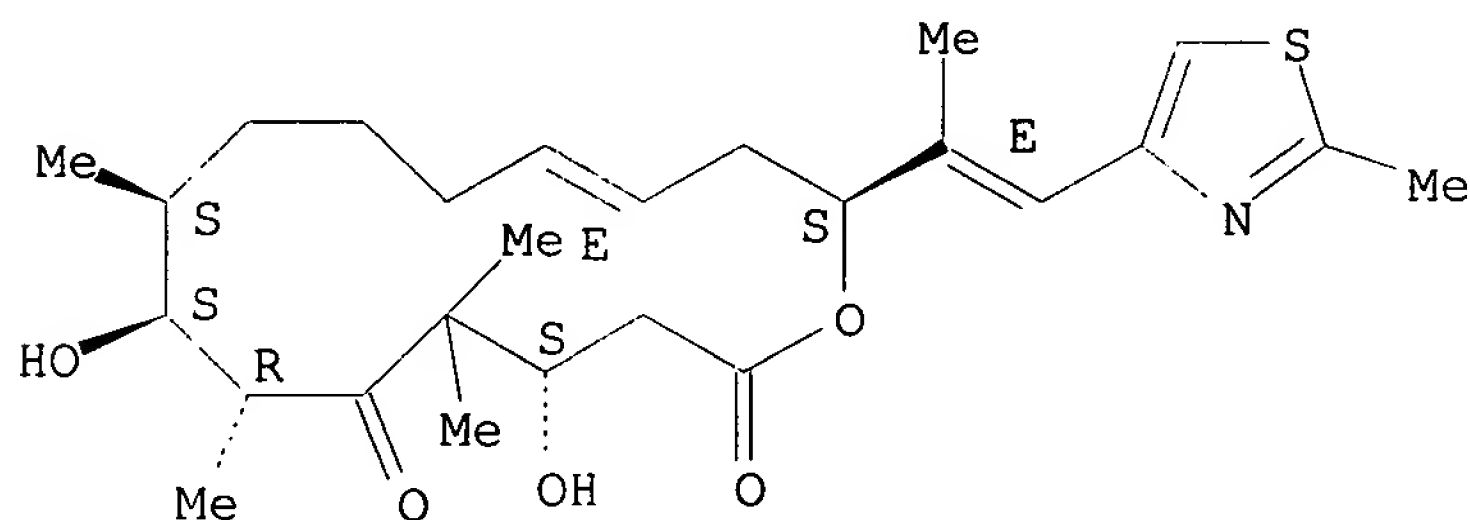
(prepn. of epothilone analogs as anticancer agents)

RN 188260-10-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

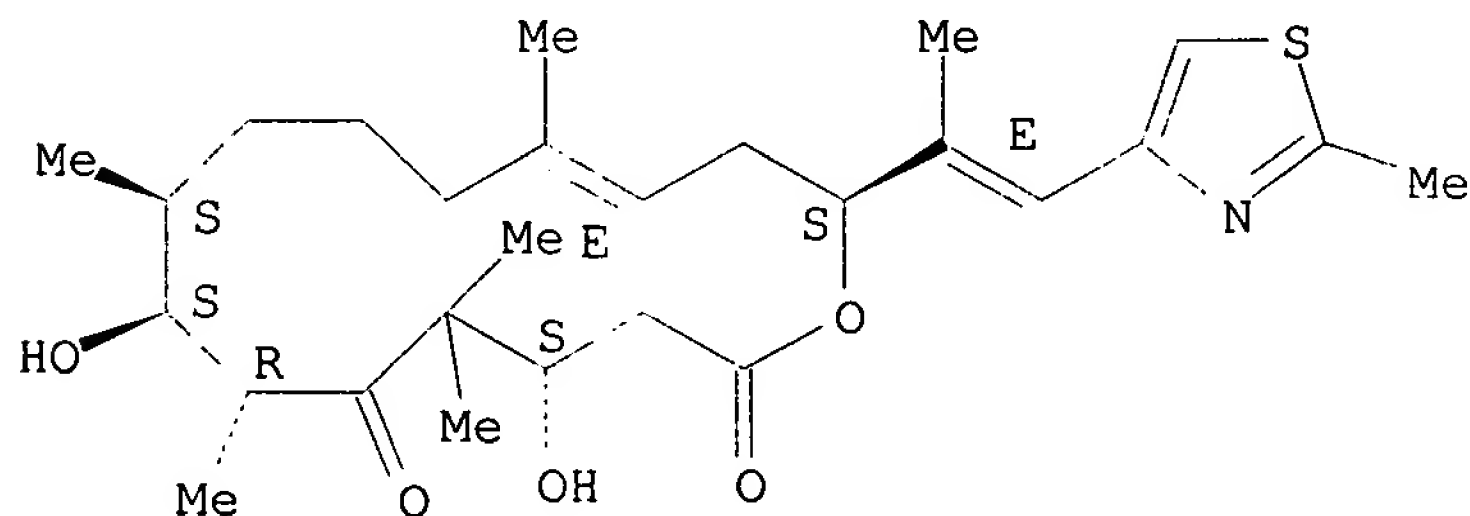


RN 189453-40-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

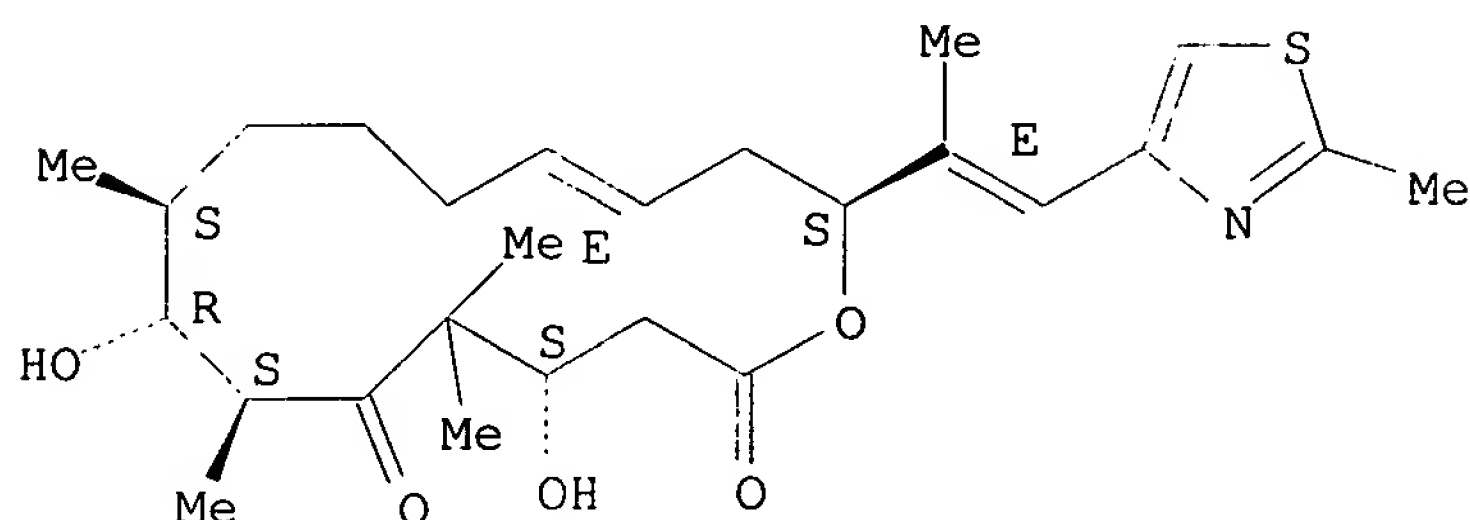


RN 193071-86-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9S,13E,16S)-

(9CI) (CA INDEX NAME)

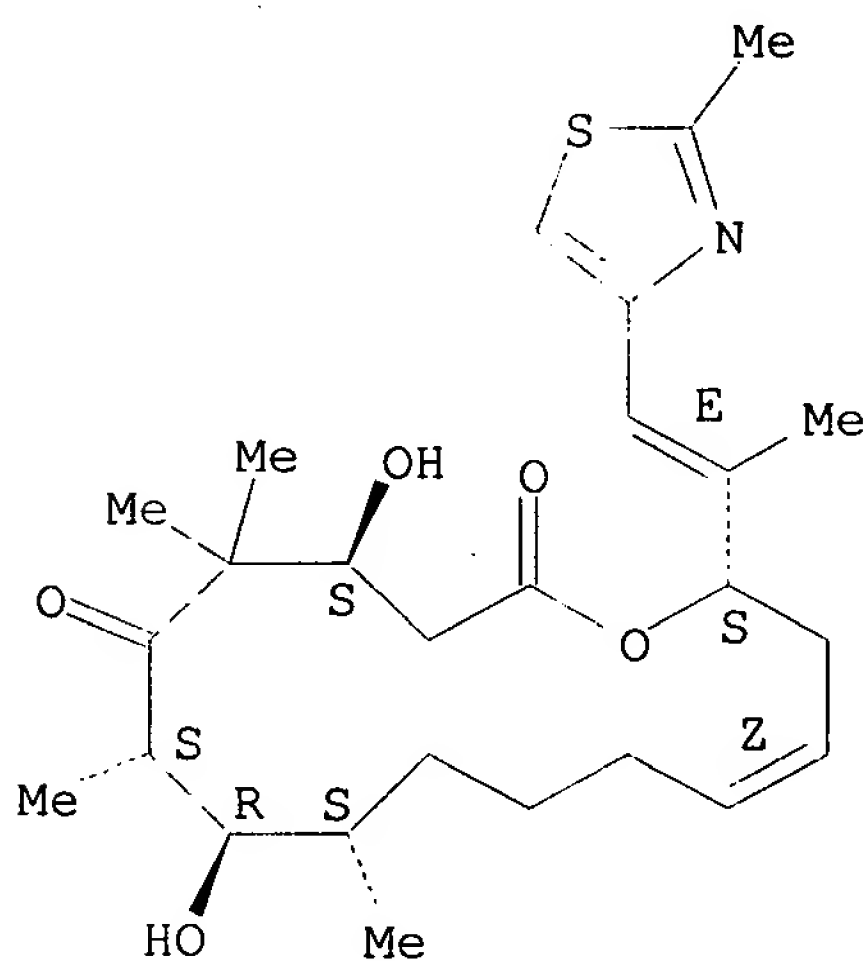
Absolute stereochemistry.
Double bond geometry as shown.



RN 193146-35-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

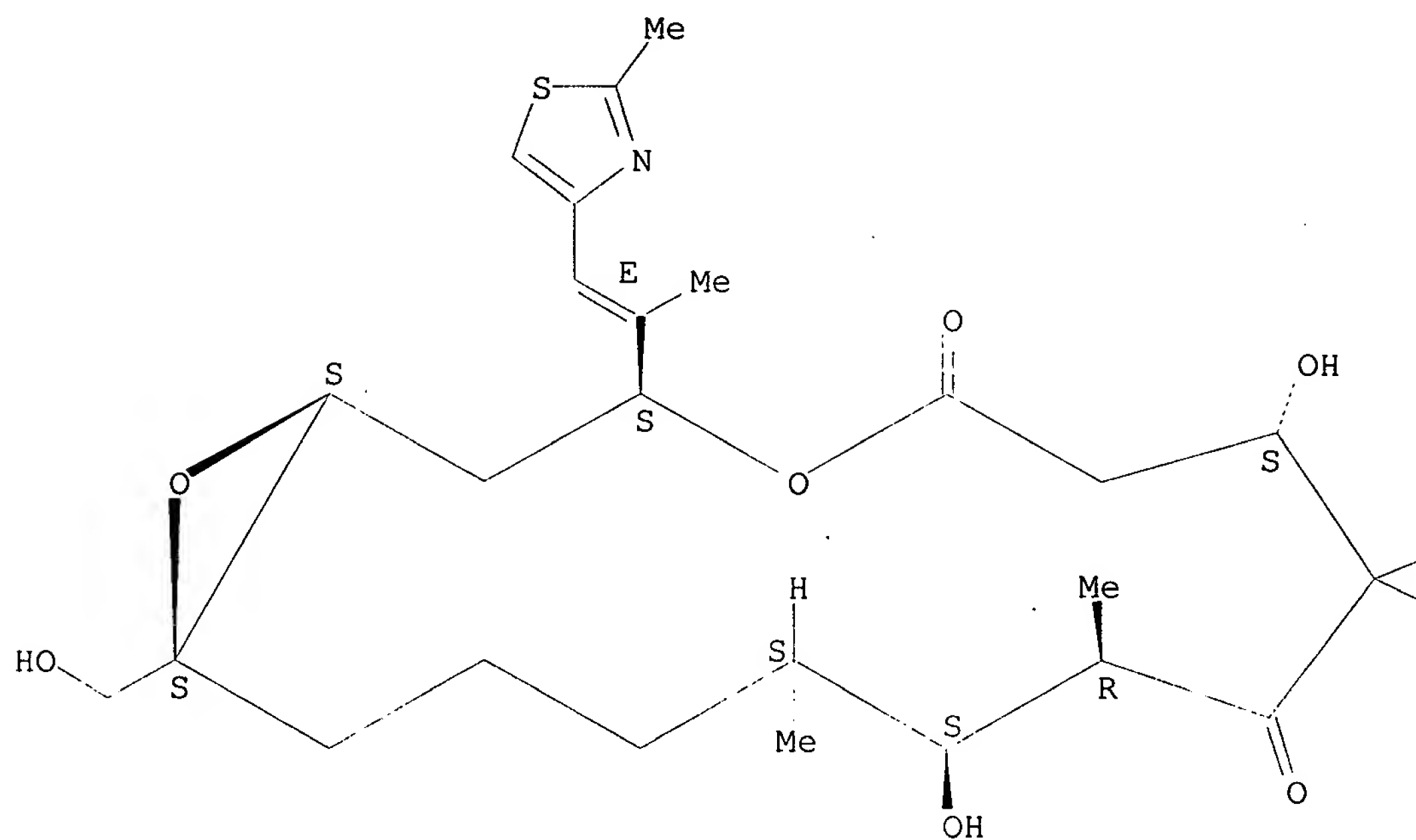


RN 201136-80-3 CAPLUS

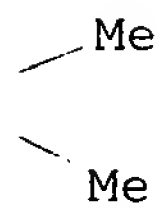
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-16-
(hydroxymethyl)-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



IT 188259-95-2P 188260-34-6P 190369-91-6P
190370-10-6P 190370-11-7P 192370-82-4P
193071-75-9P 193071-82-8P 193071-89-5P
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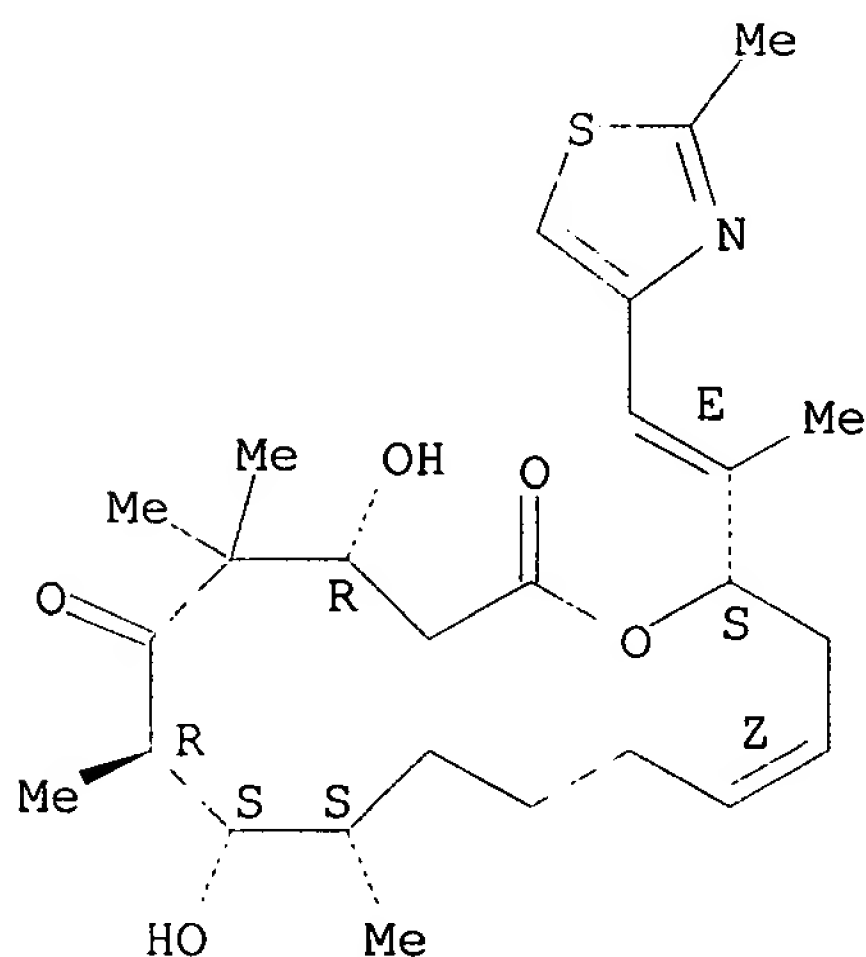
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of epothilone analogs as anticancer agents)

RN 188259-95-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8S,9S,13Z,16S)-(9CI) (CA INDEX NAME)

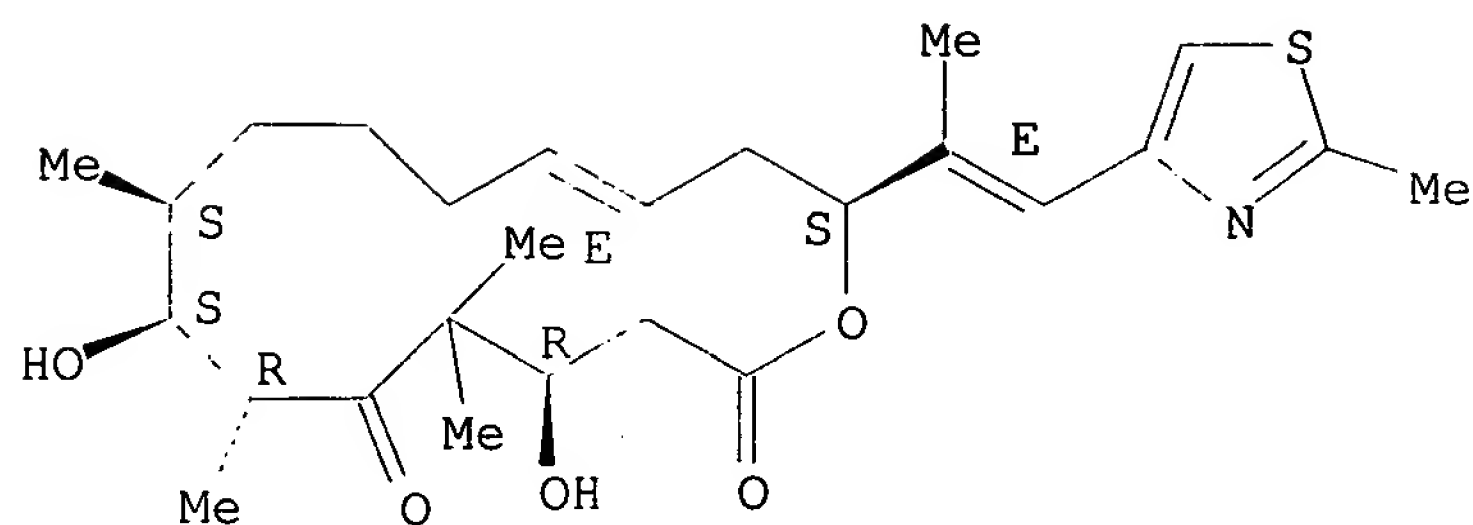
Absolute stereochemistry. Rotation (-).
 Double bond geometry as shown.



RN 188260-34-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8S,9S,13E,16S)-(9CI) (CA INDEX NAME)

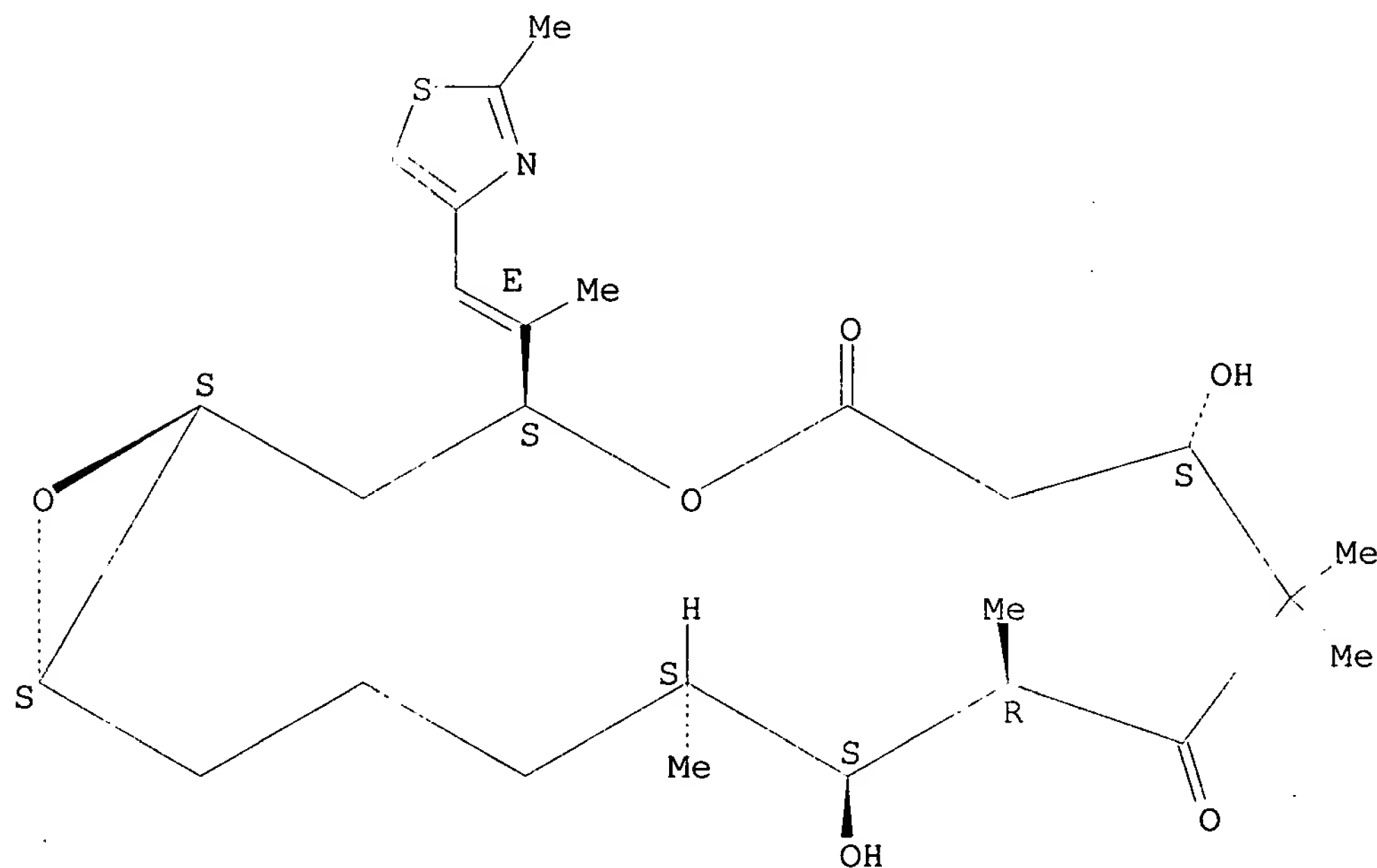
Absolute stereochemistry. Rotation (+).
 Double bond geometry as shown.



RN 190369-91-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

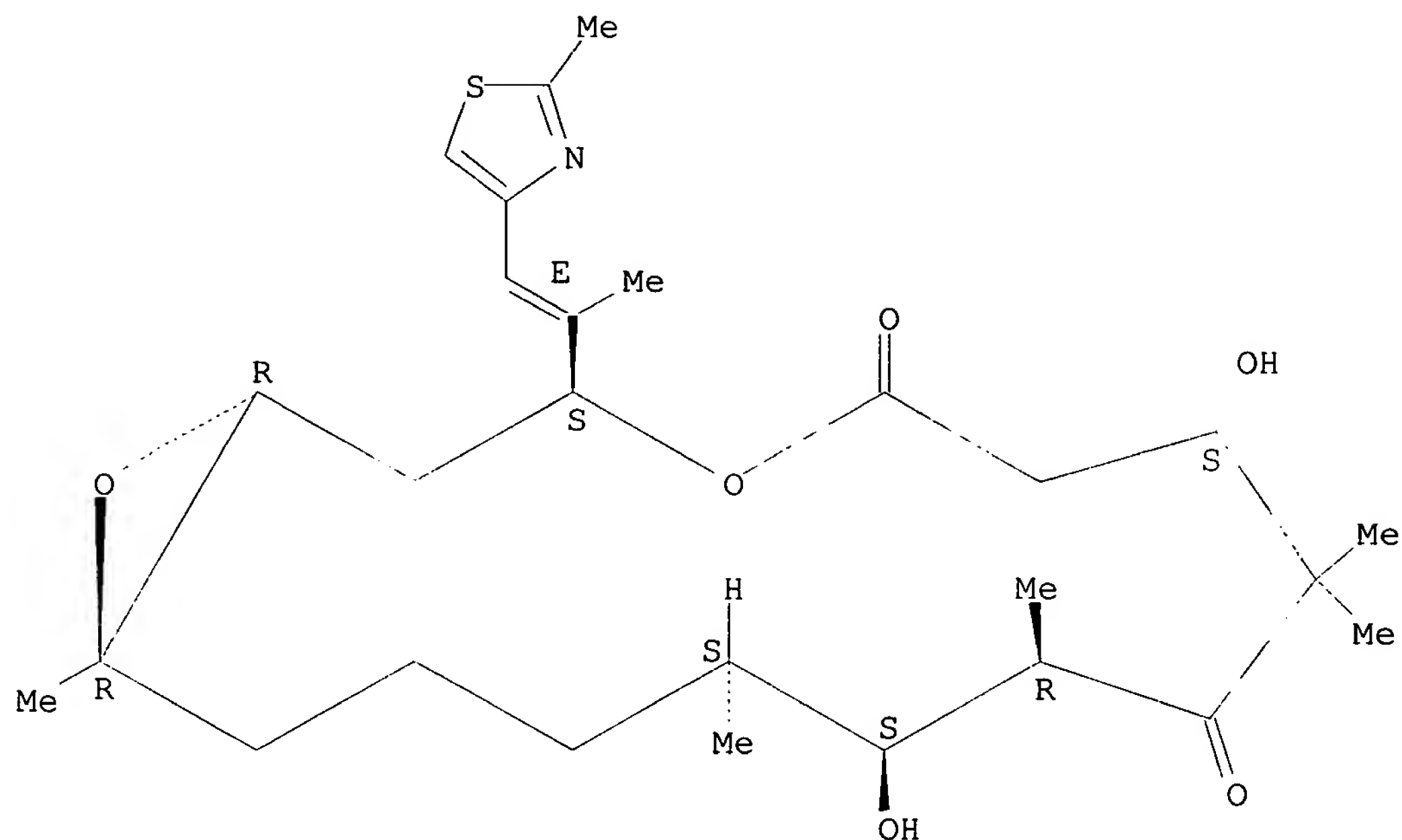


RN 190370-10-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

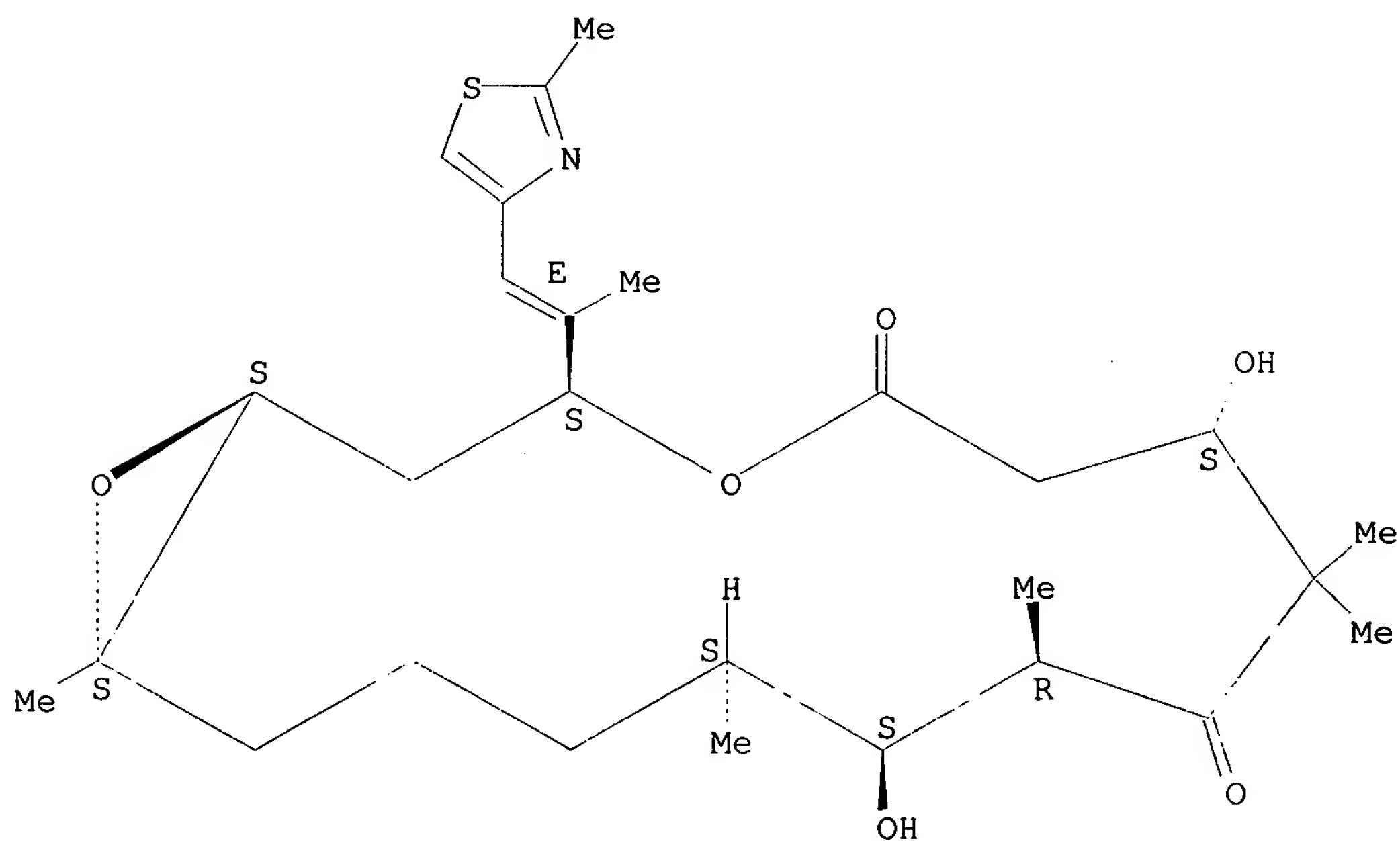


RN 190370-11-7 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

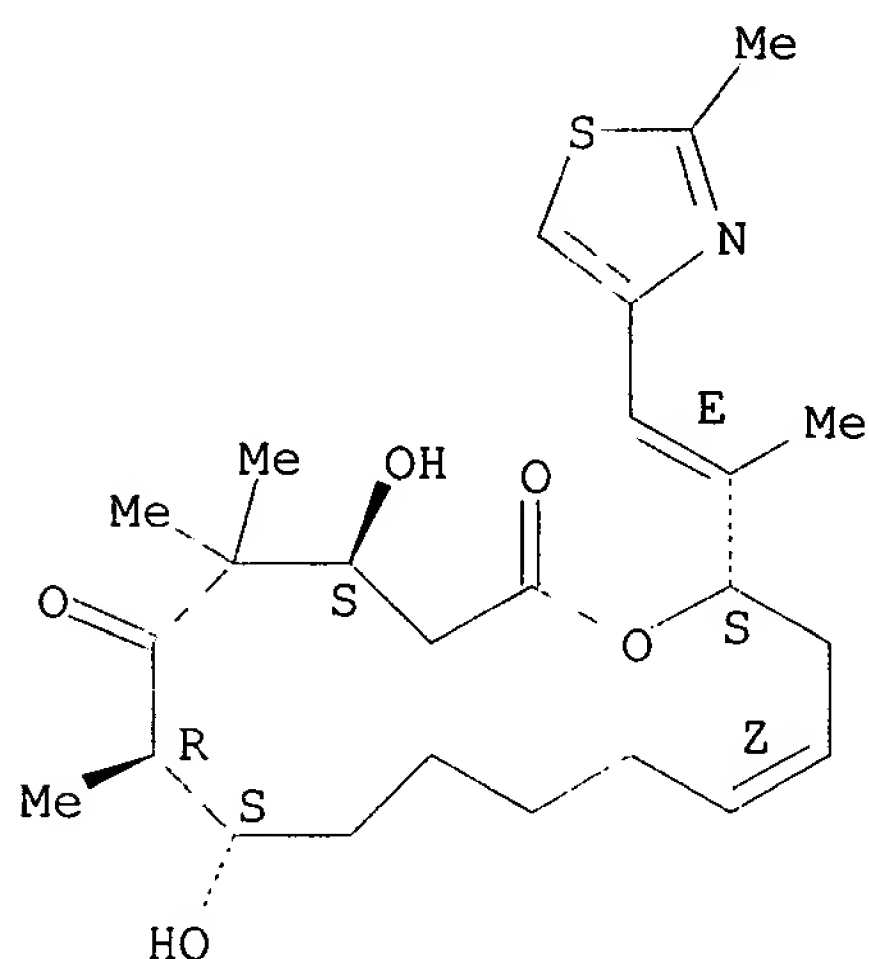
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 192370-82-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7-trimethyl-16-[(1E)-1-
methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,13Z,16S)- (9CI) (CA
INDEX NAME)

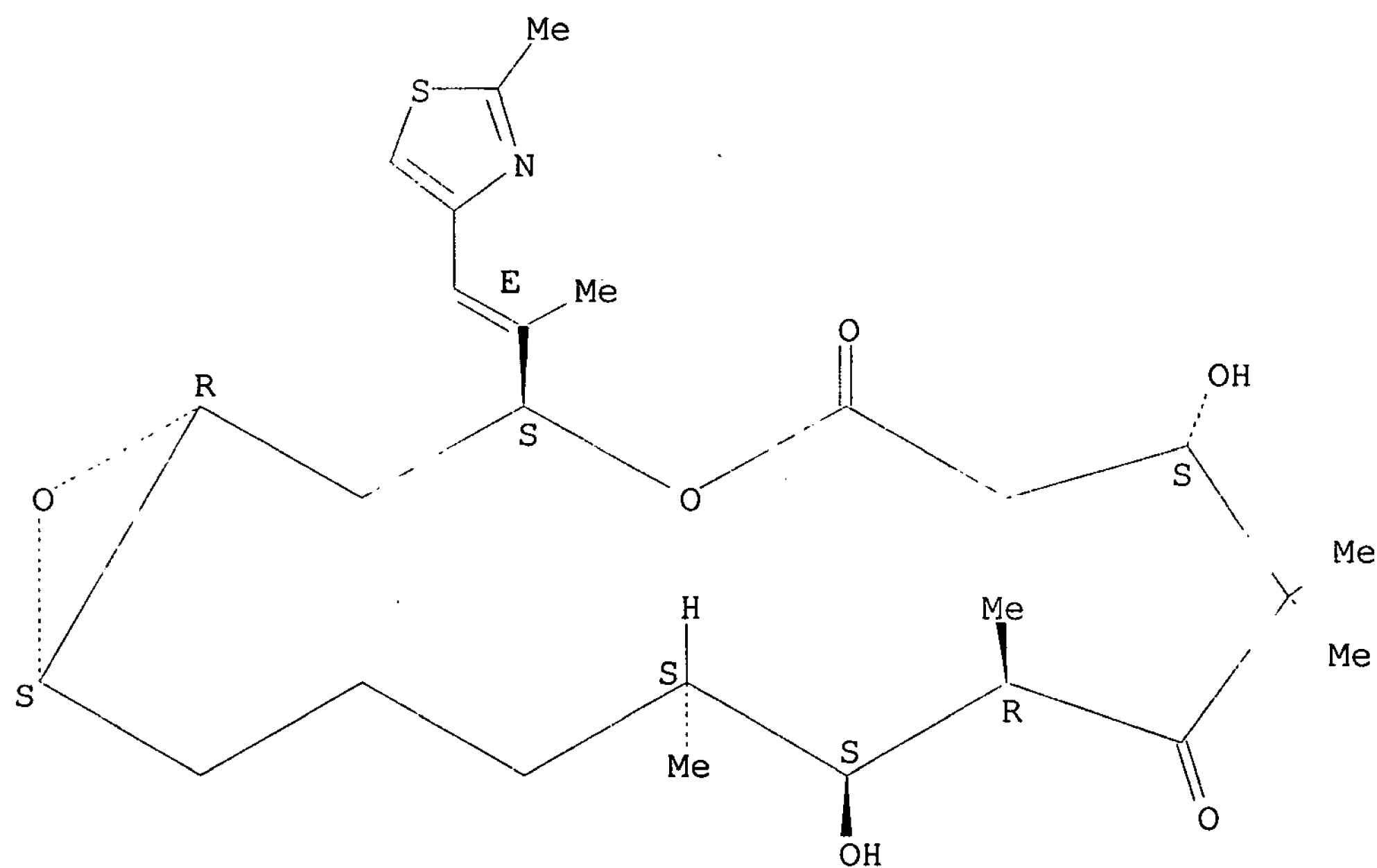
Absolute stereochemistry.
Double bond geometry as shown.



RN 193071-75-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-
tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

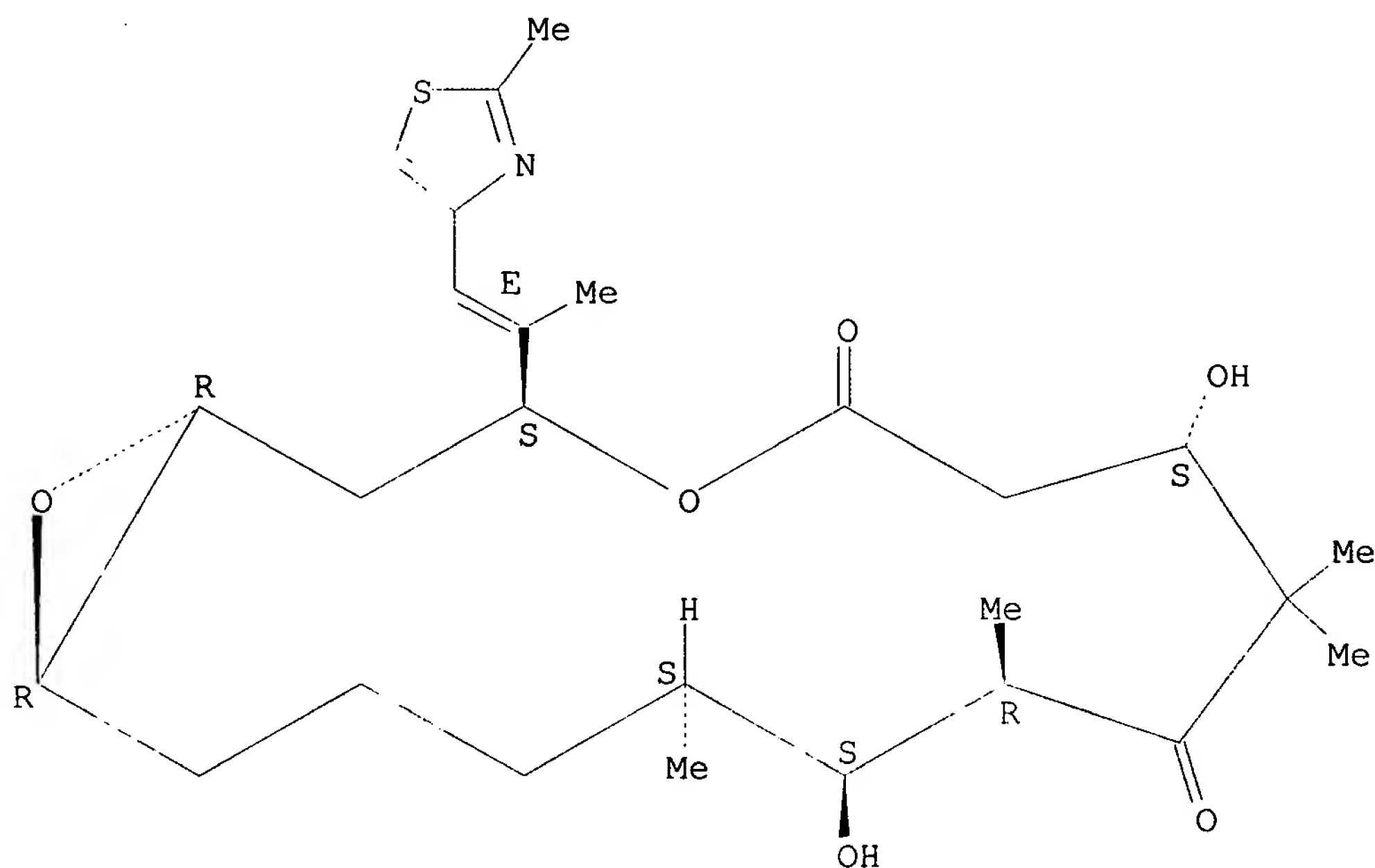
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 193071-82-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

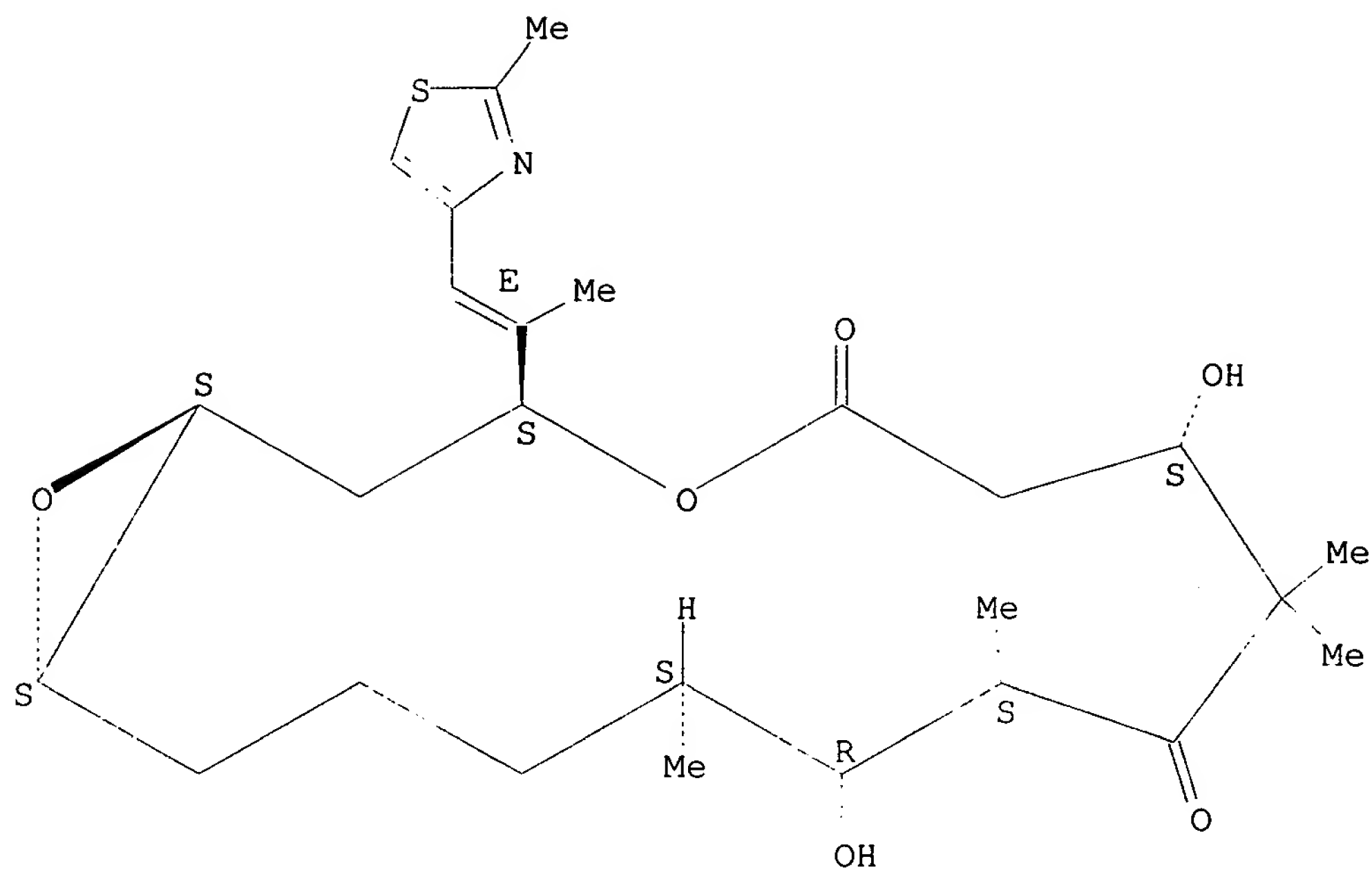
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 193071-89-5 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10S,11R,12S,16S)- (9CI) (CA INDEX NAME)

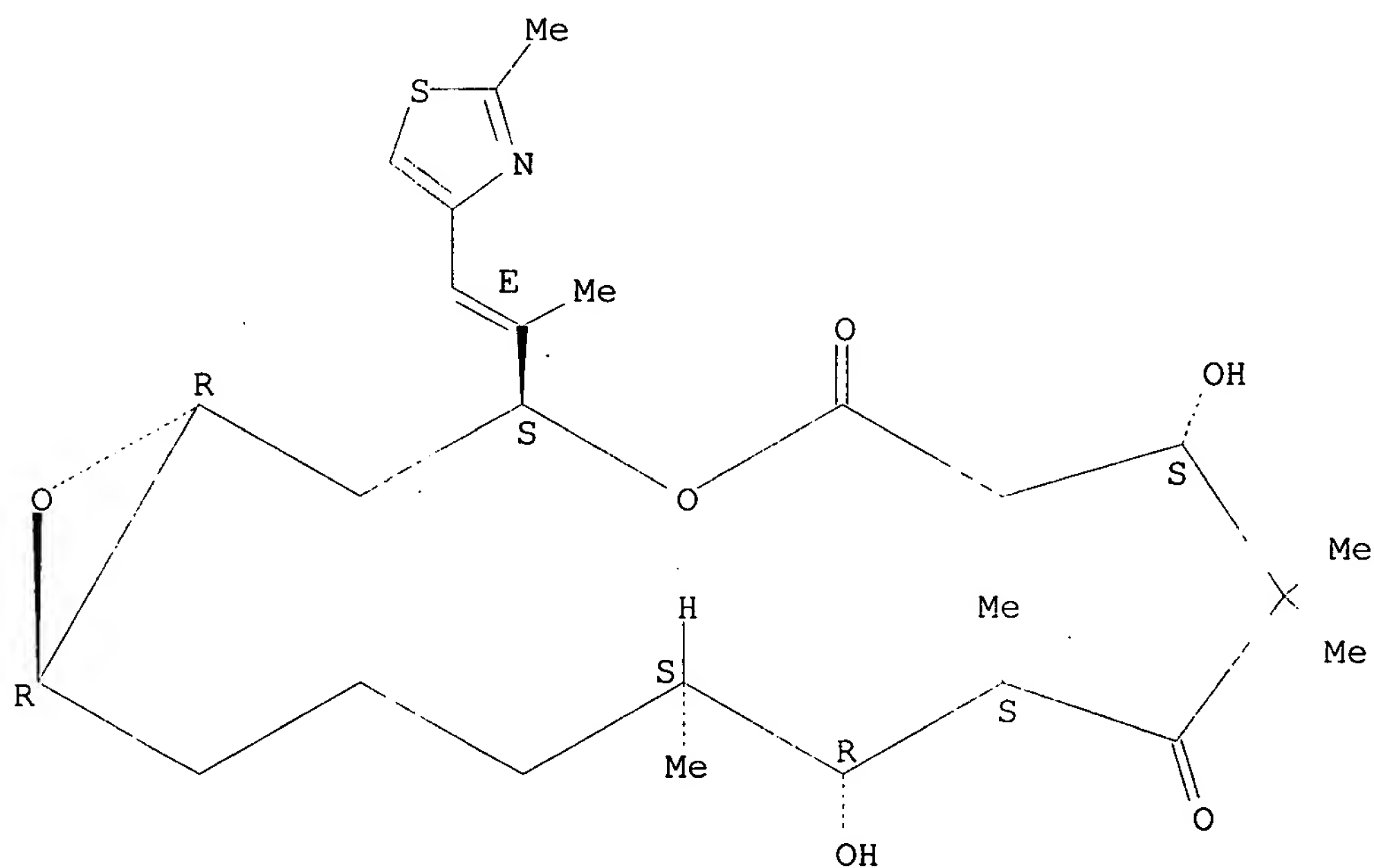
Absolute stereochemistry.
Double bond geometry as shown.



RN 193071-90-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10S,11R,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

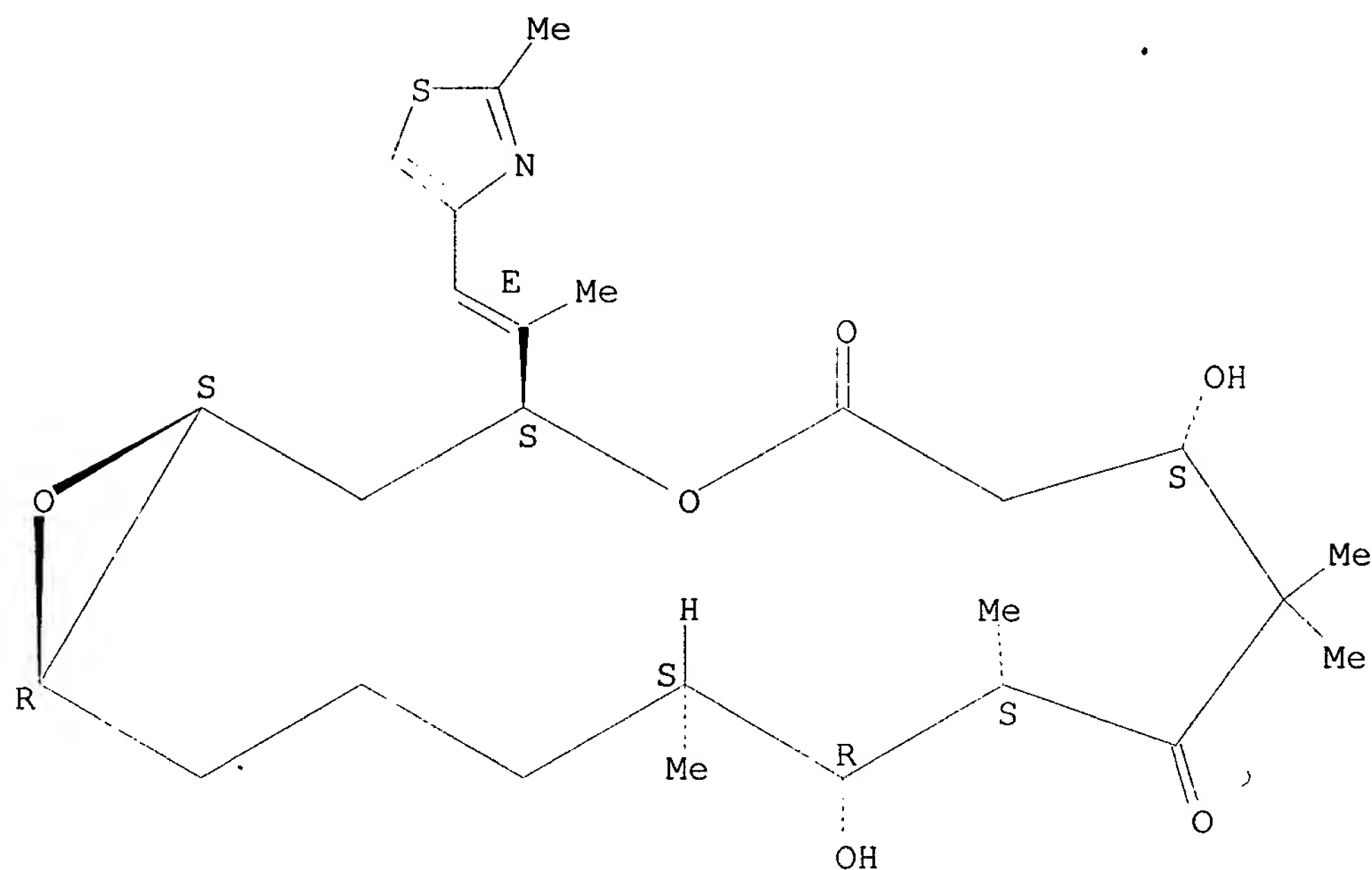


RN 193146-36-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-

tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10S,11R,12S,16R)- (9CI) (CA INDEX NAME)

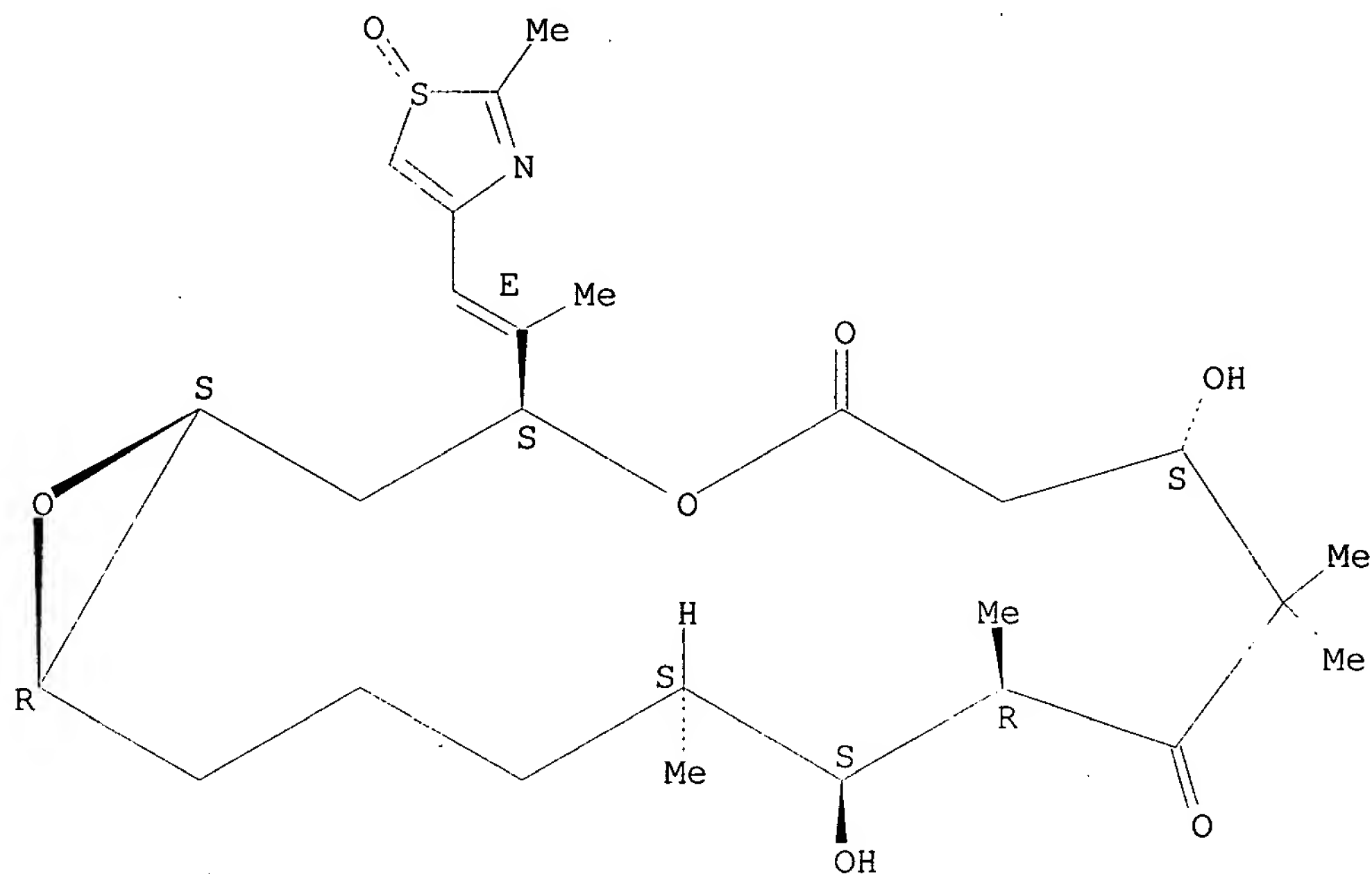
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 198571-03-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-1-oxido-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

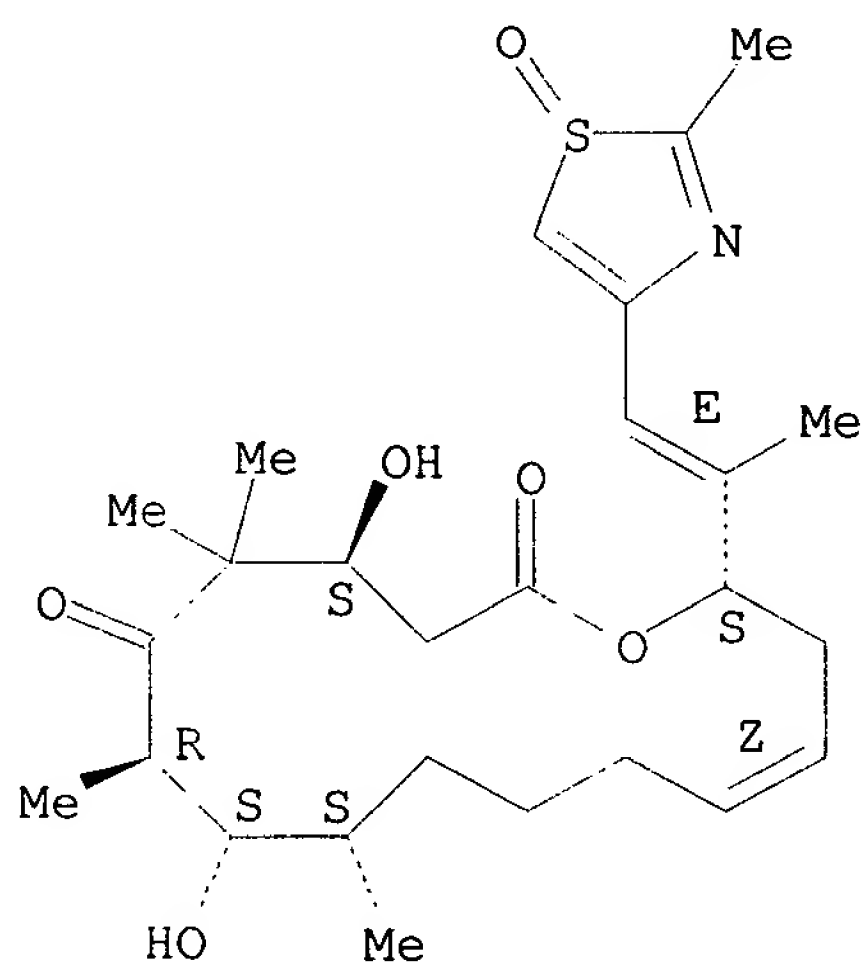


RN 198571-04-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-1-oxido-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

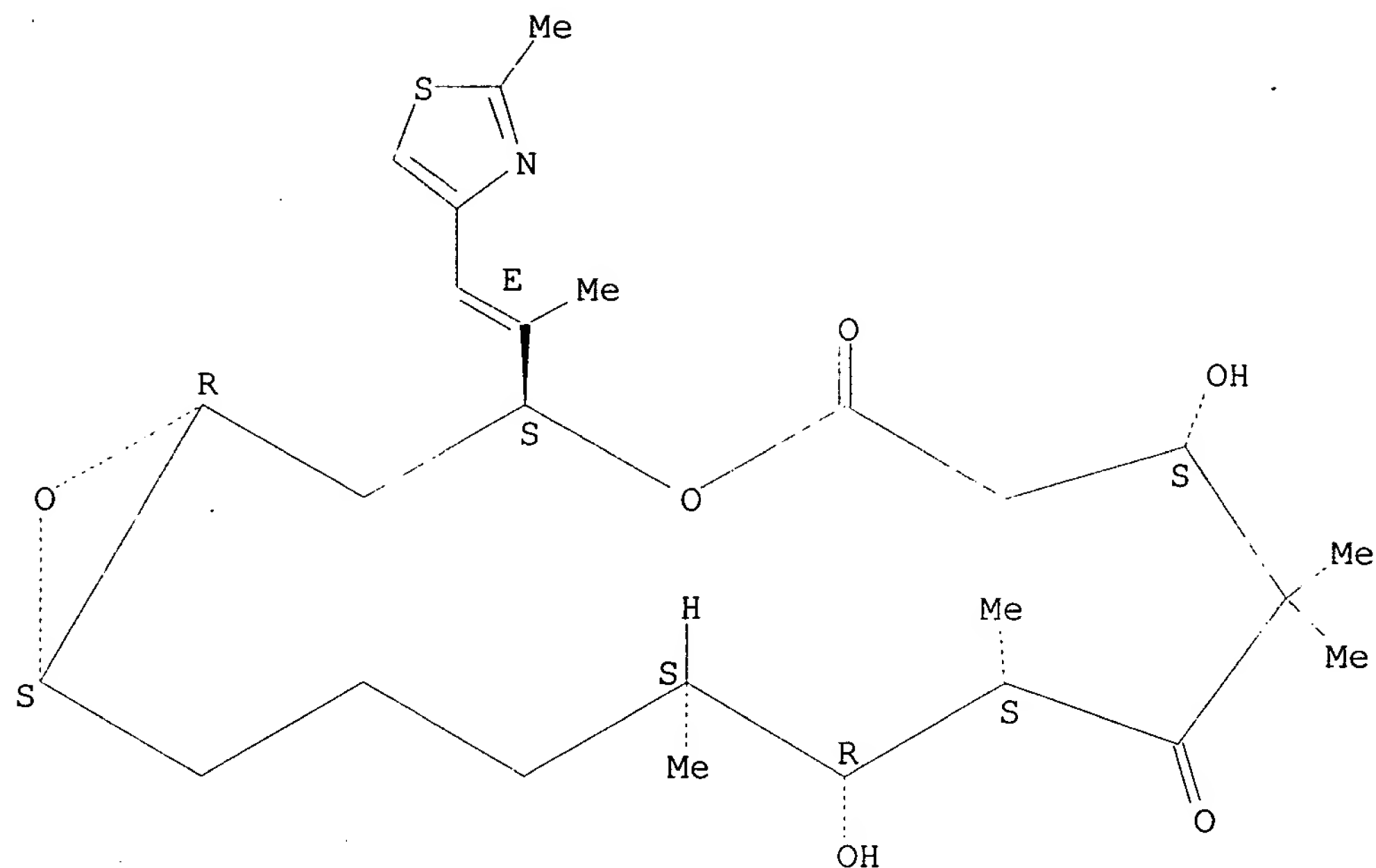


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CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10S,11R,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

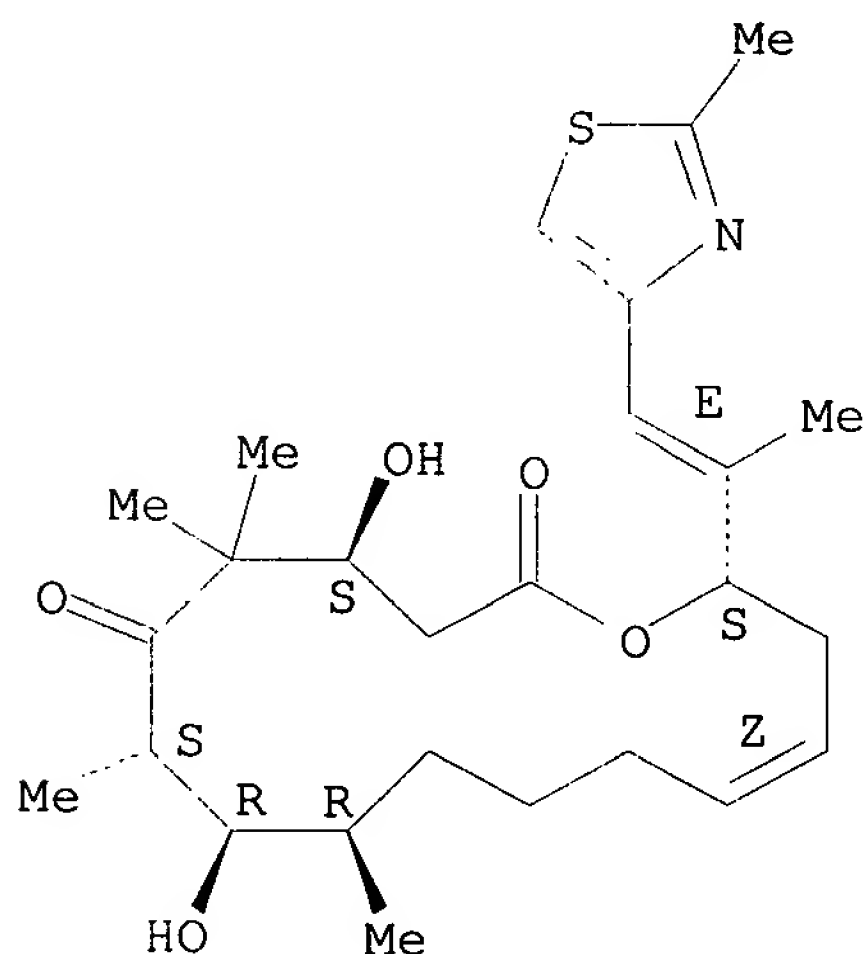
Double bond geometry as shown.



RN 198571-16-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9R,13Z,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

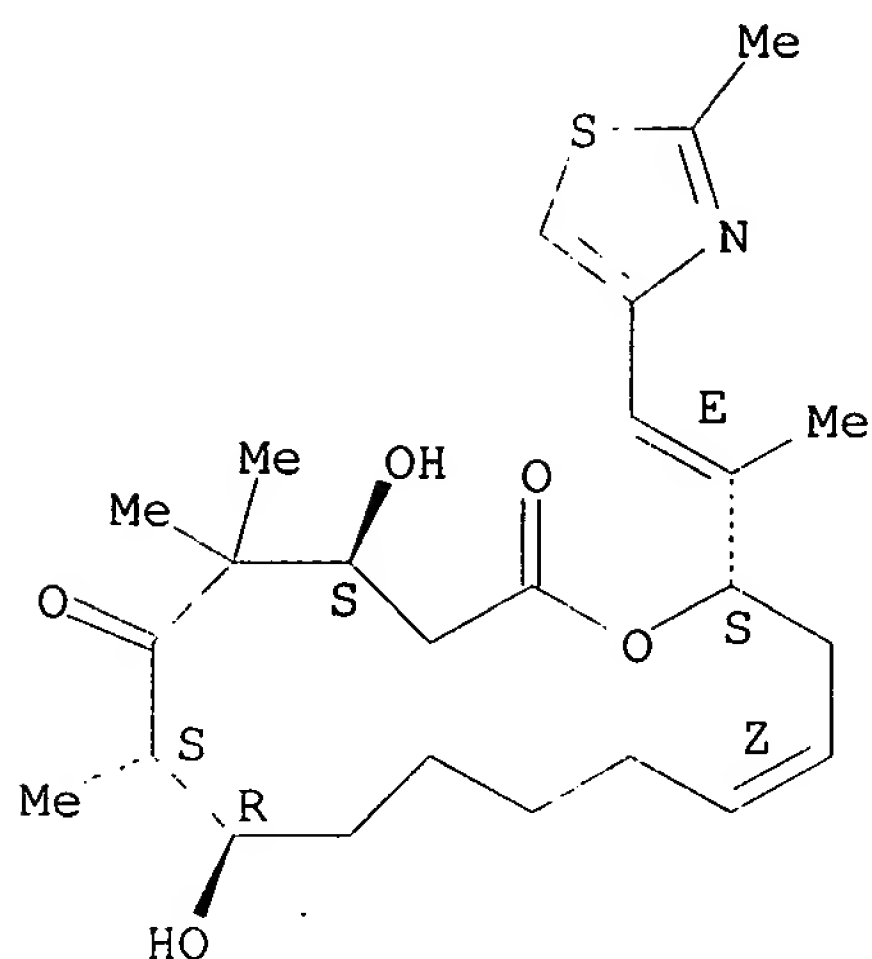


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CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7-trimethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,13Z,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

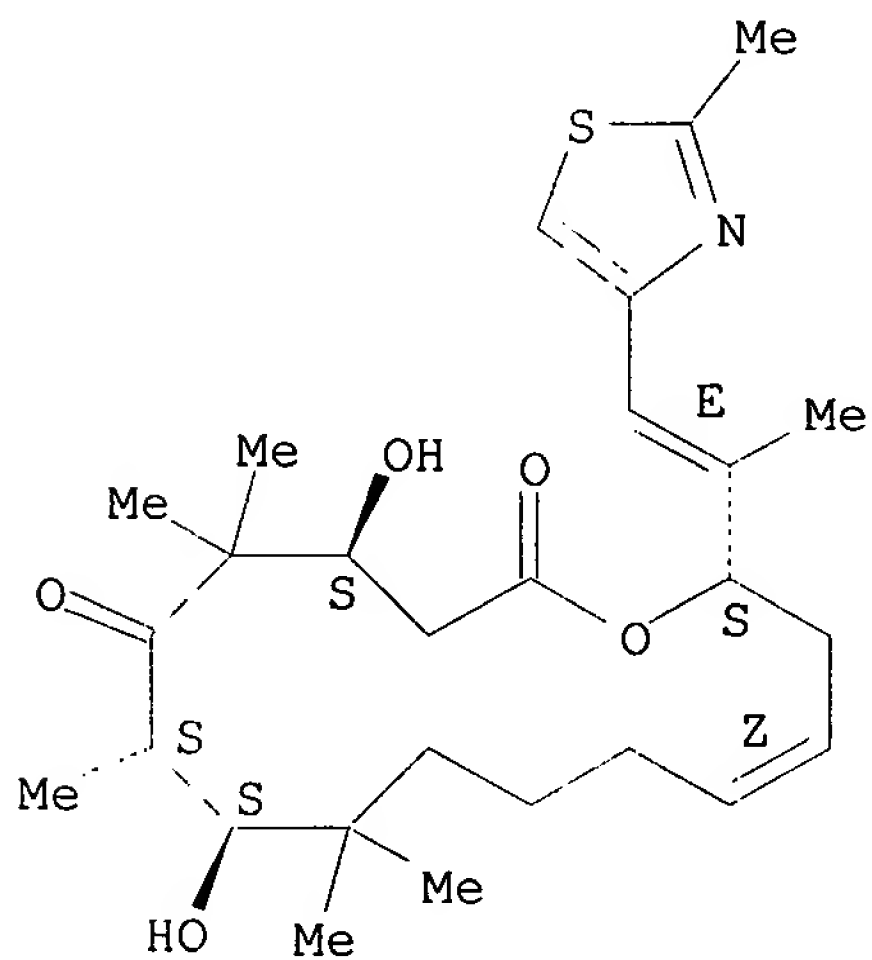


RN 198571-18-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-
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(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

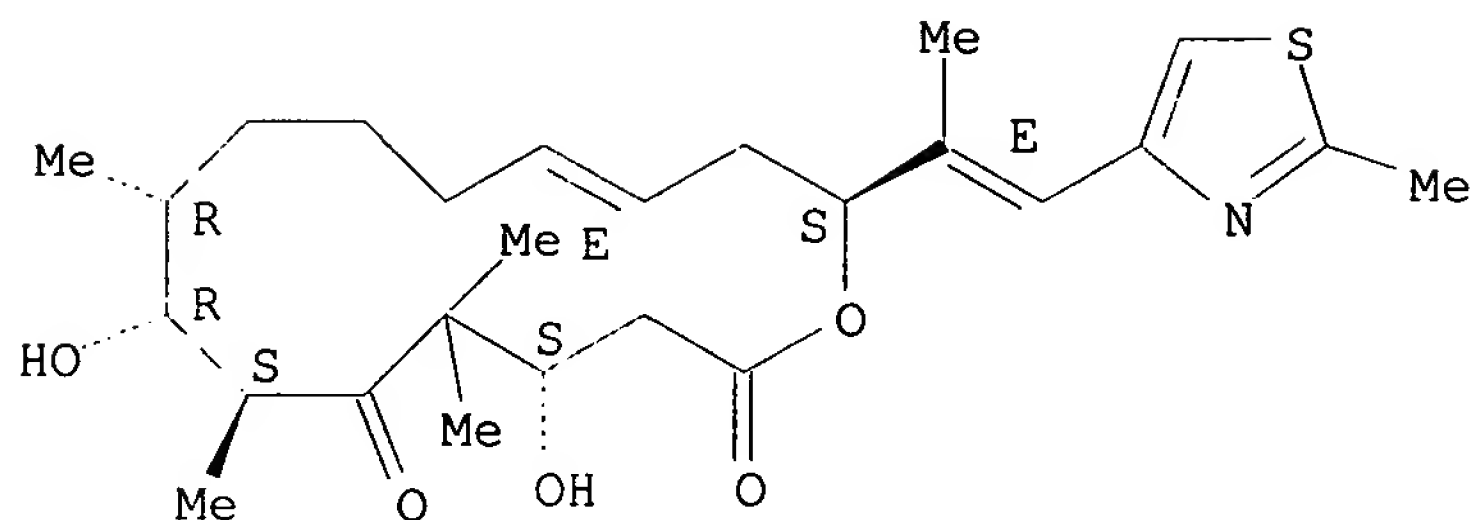


RN 198571-20-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
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(9CI) (CA INDEX NAME)

Absolute stereochemistry.

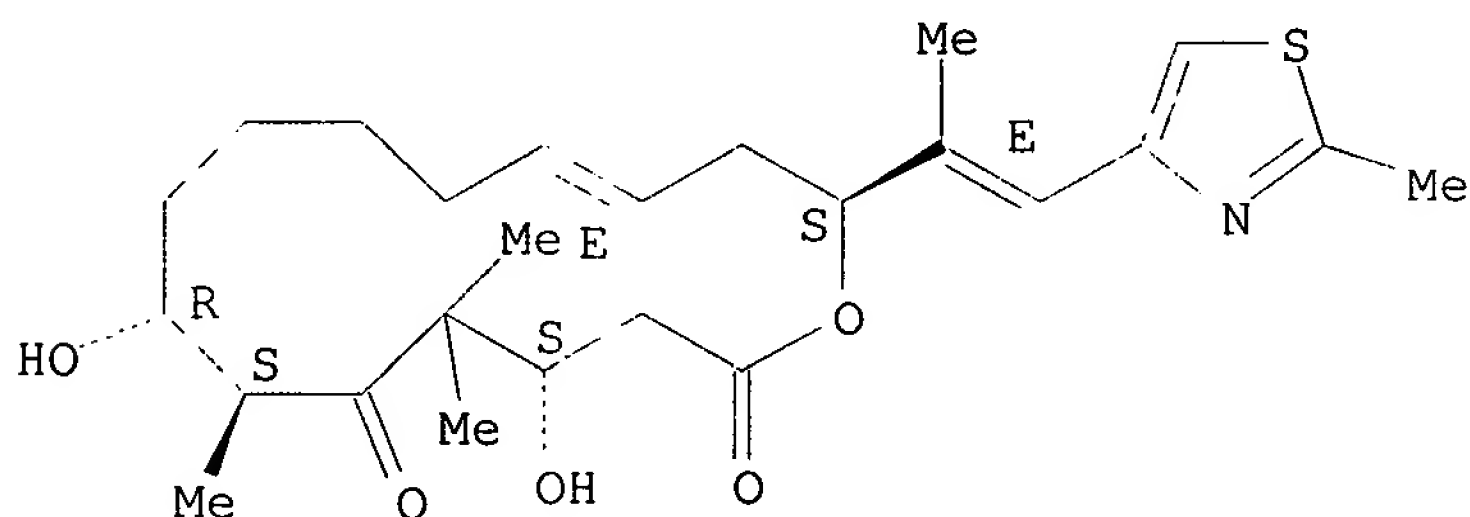
Double bond geometry as shown.



RN 198571-21-0 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
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INDEX NAME)

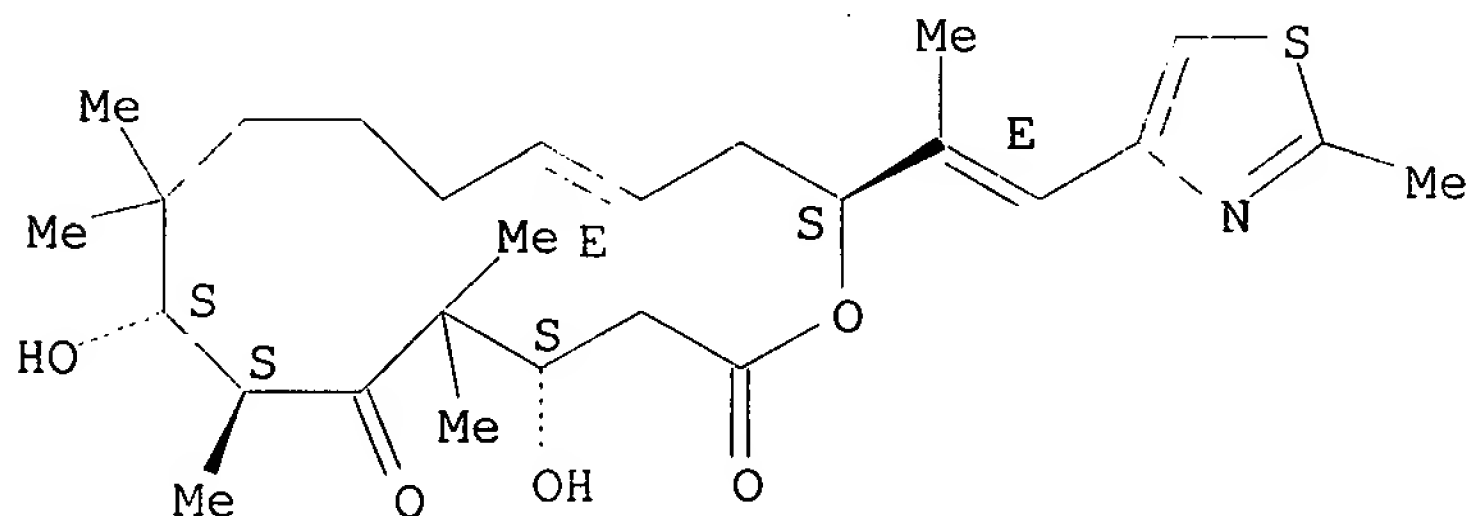
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-22-1 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8S,13E,16S)-
(9CI) (CA INDEX NAME)

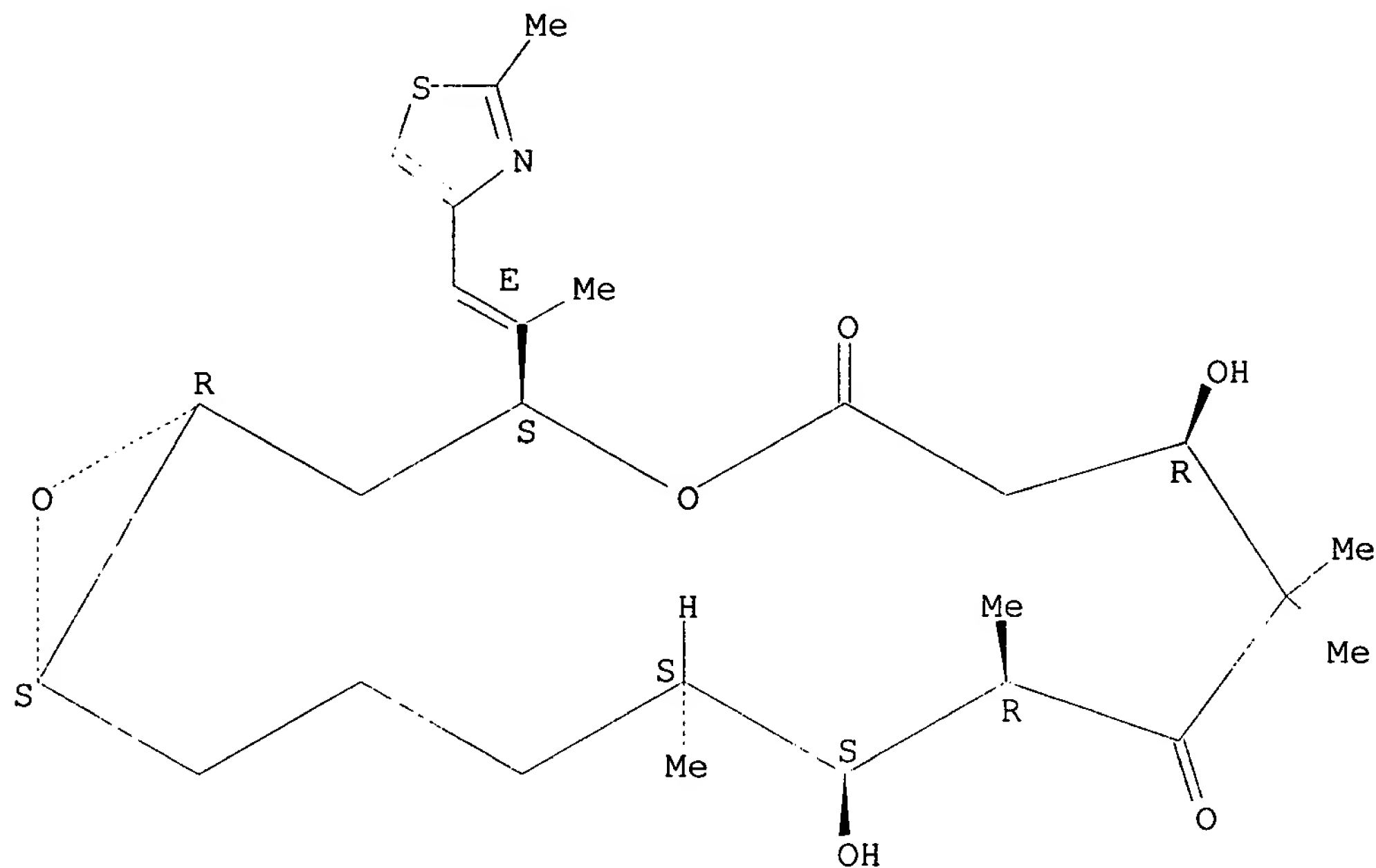
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-23-2 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-
tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1R,3S,7R,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

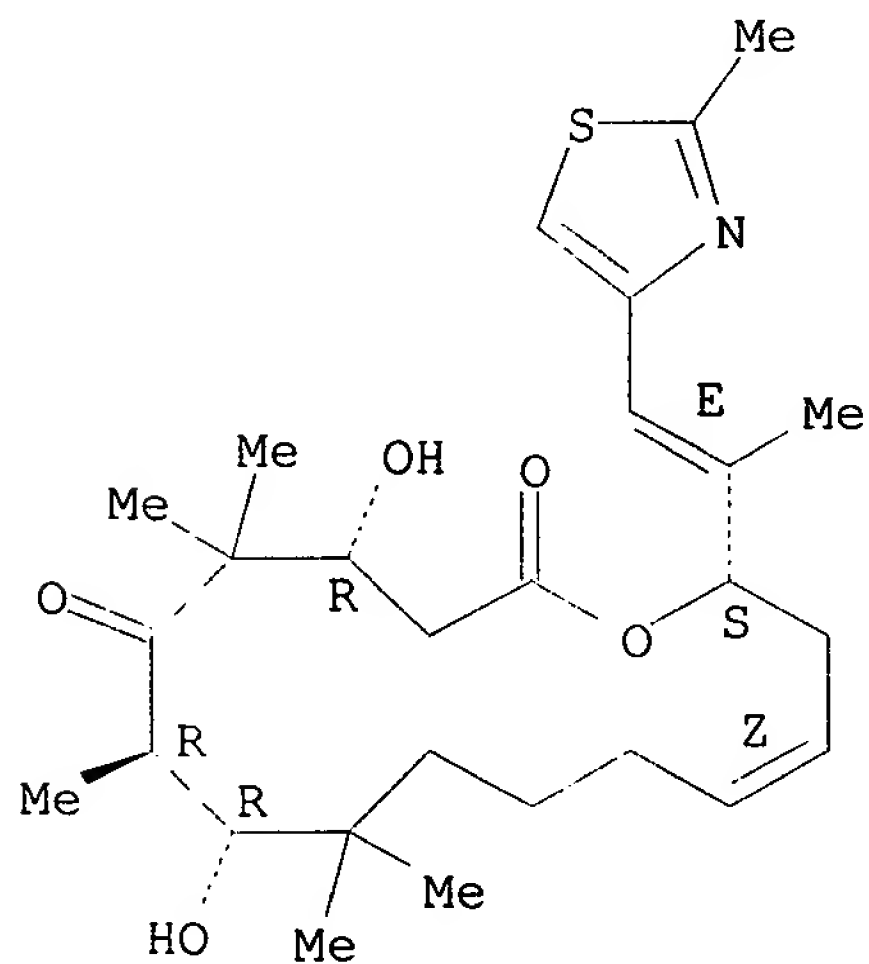
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-24-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8R,13Z,16S)- (9CI) (CA INDEX NAME)

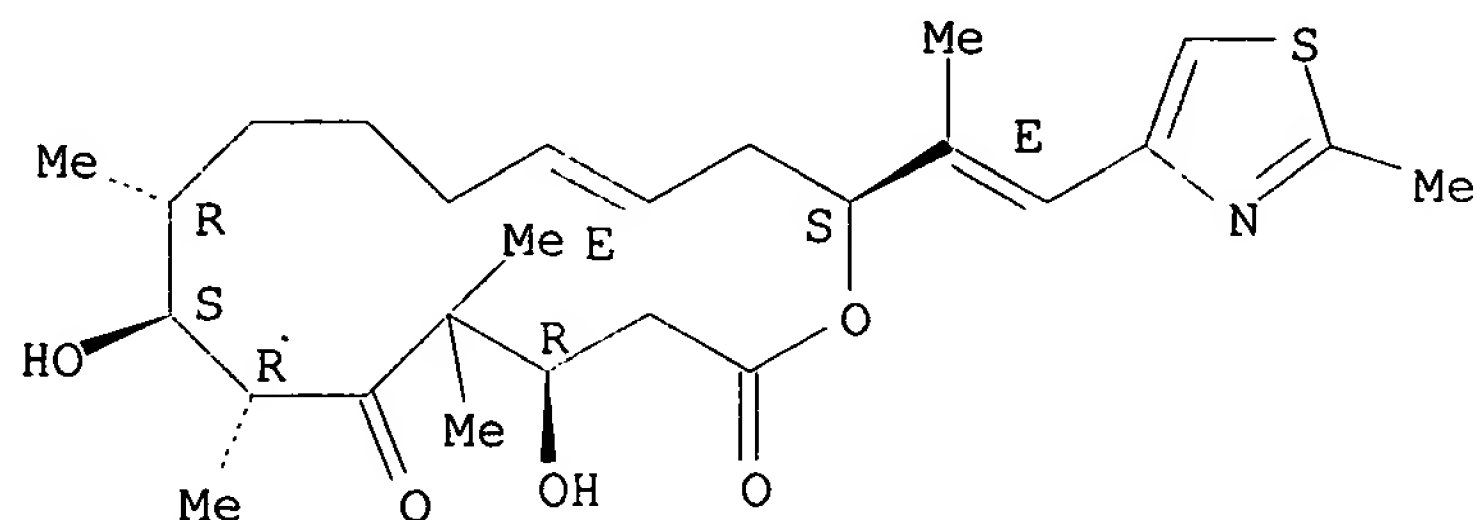
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-25-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8S,9R,13E,16S)- (9CI) (CA INDEX NAME)

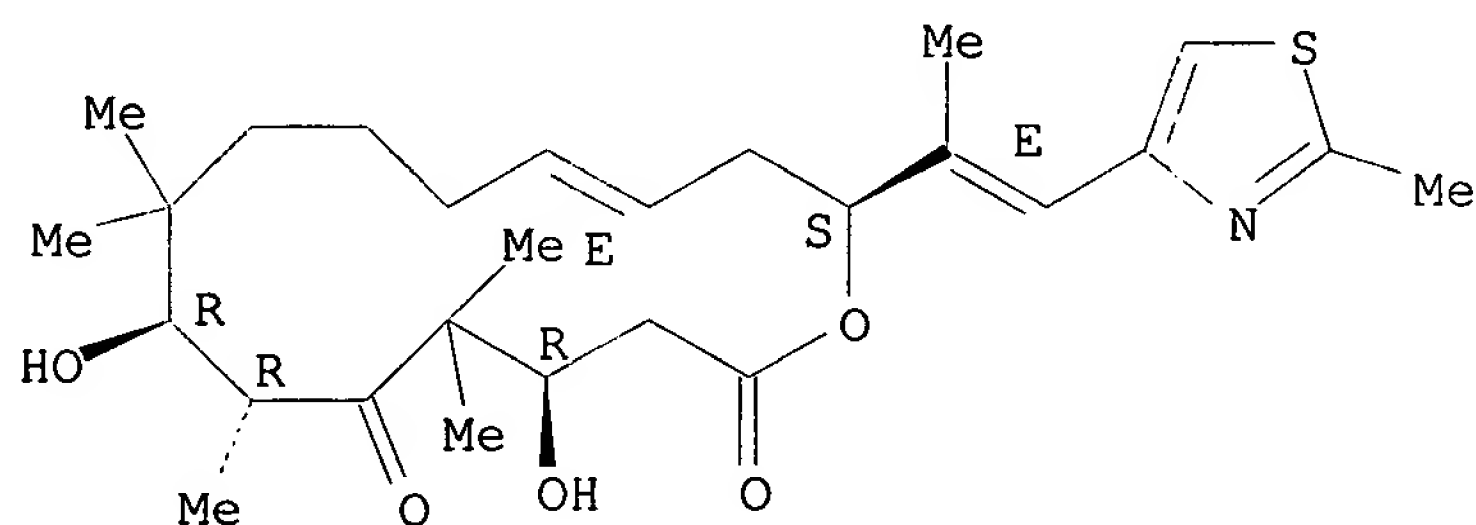
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-26-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8R,13E,16S)-(9CI) (CA INDEX NAME)

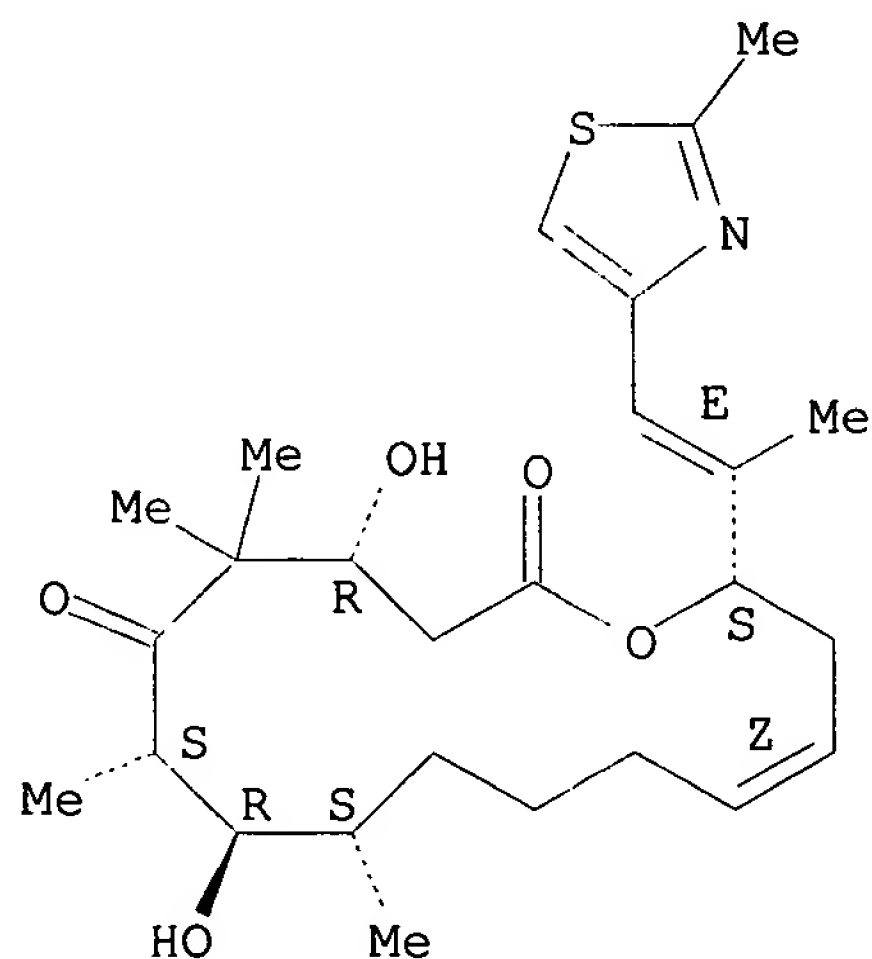
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-28-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7S,8R,9S,13Z,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

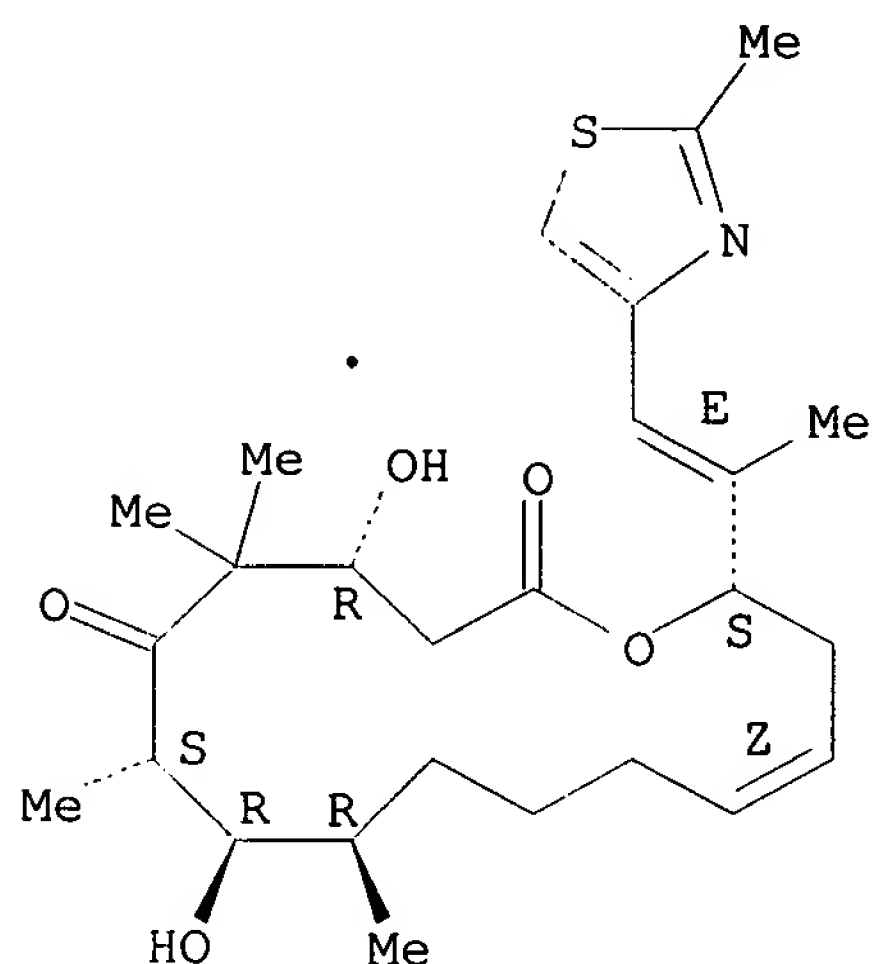


RN 198571-29-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-

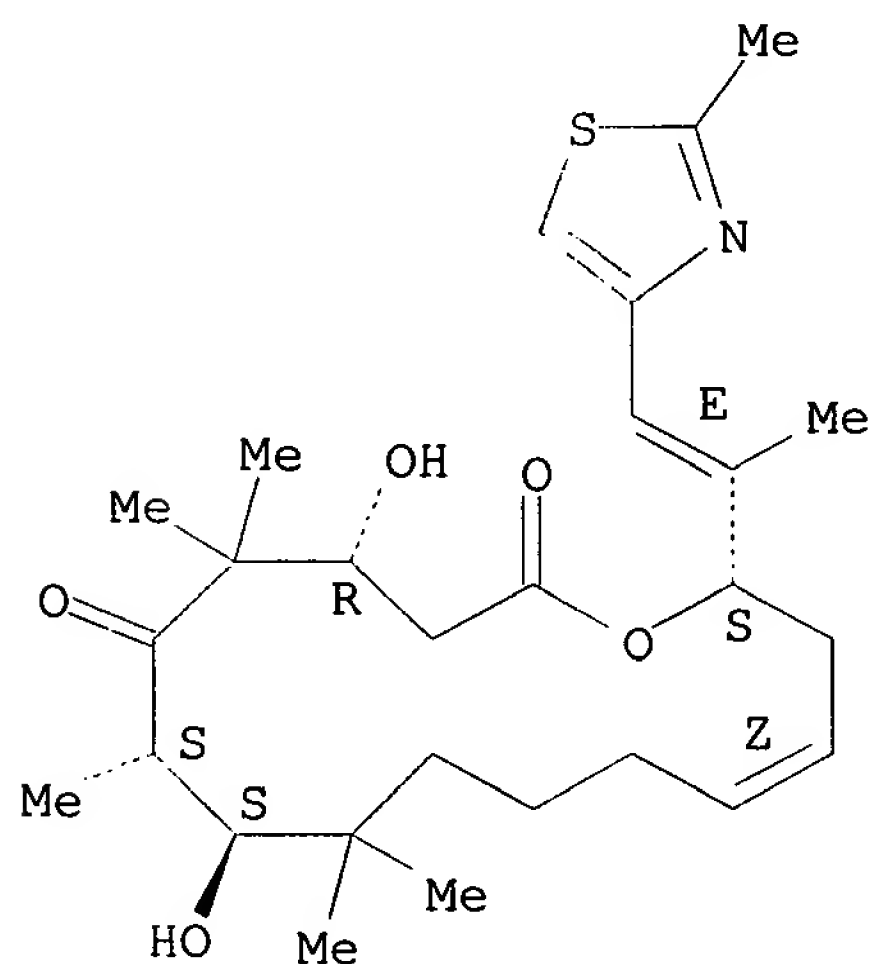
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7S,8R,9R,13Z,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



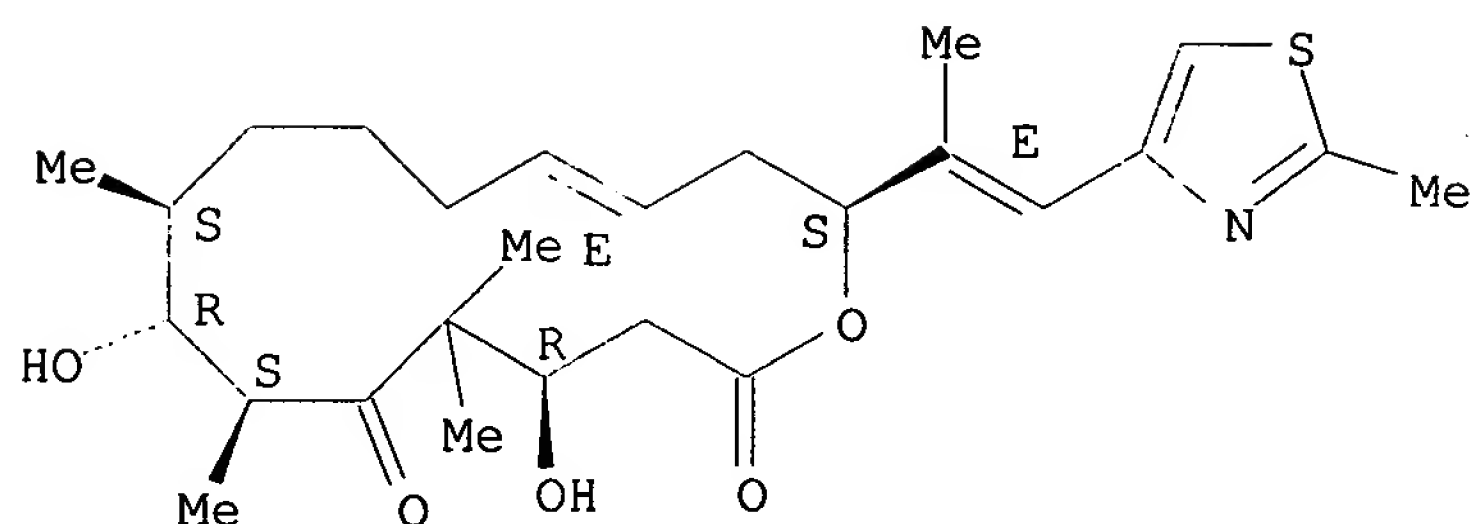
RN 198571-30-1 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7S,8S,13Z,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-31-2 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7S,8R,9S,13E,16S)-
(9CI) (CA INDEX NAME)

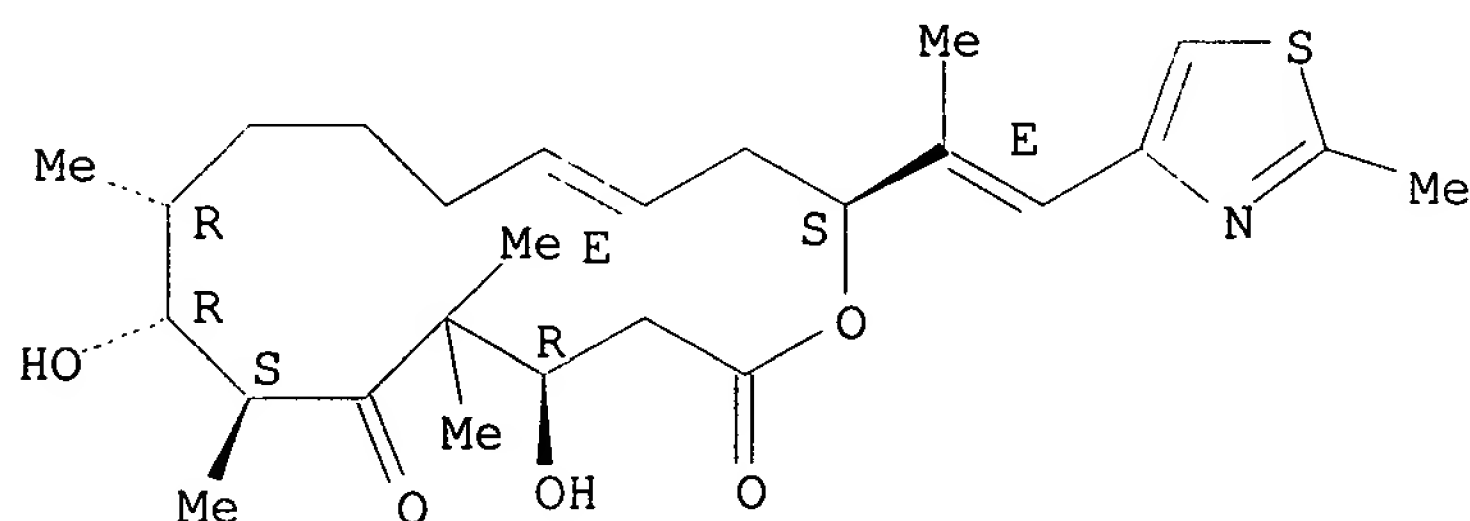
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-32-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7S,8R,9R,13E,16S)-(9CI) (CA INDEX NAME)

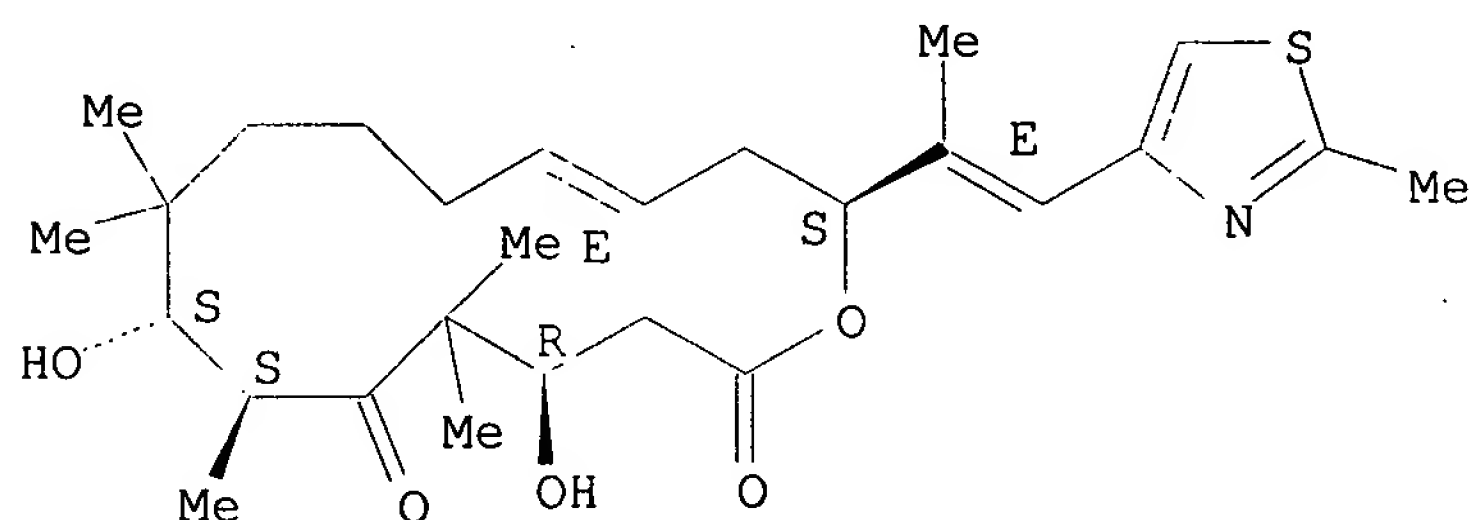
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-33-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7S,8S,13E,16S)-(9CI) (CA INDEX NAME)

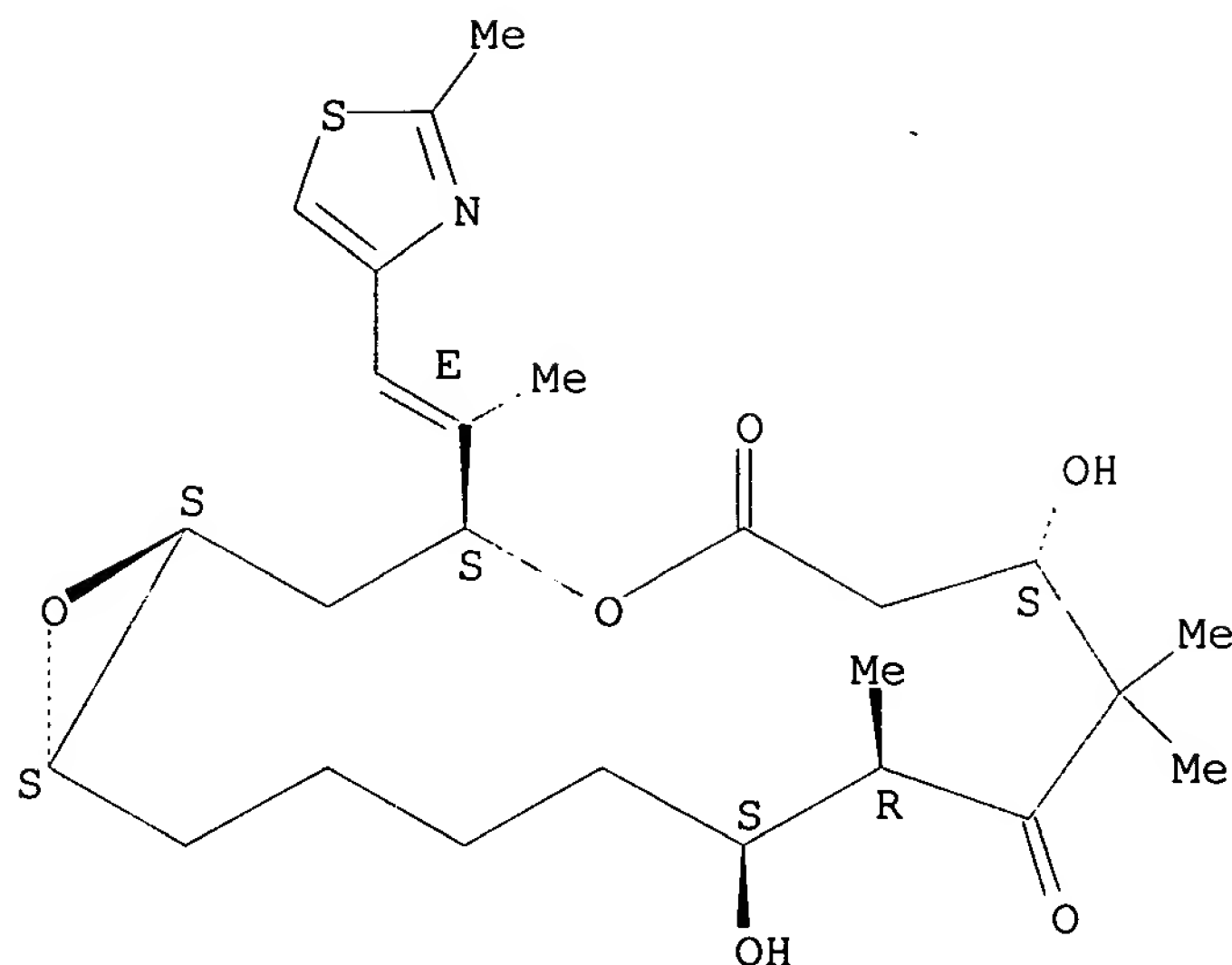
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-35-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10-trimethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

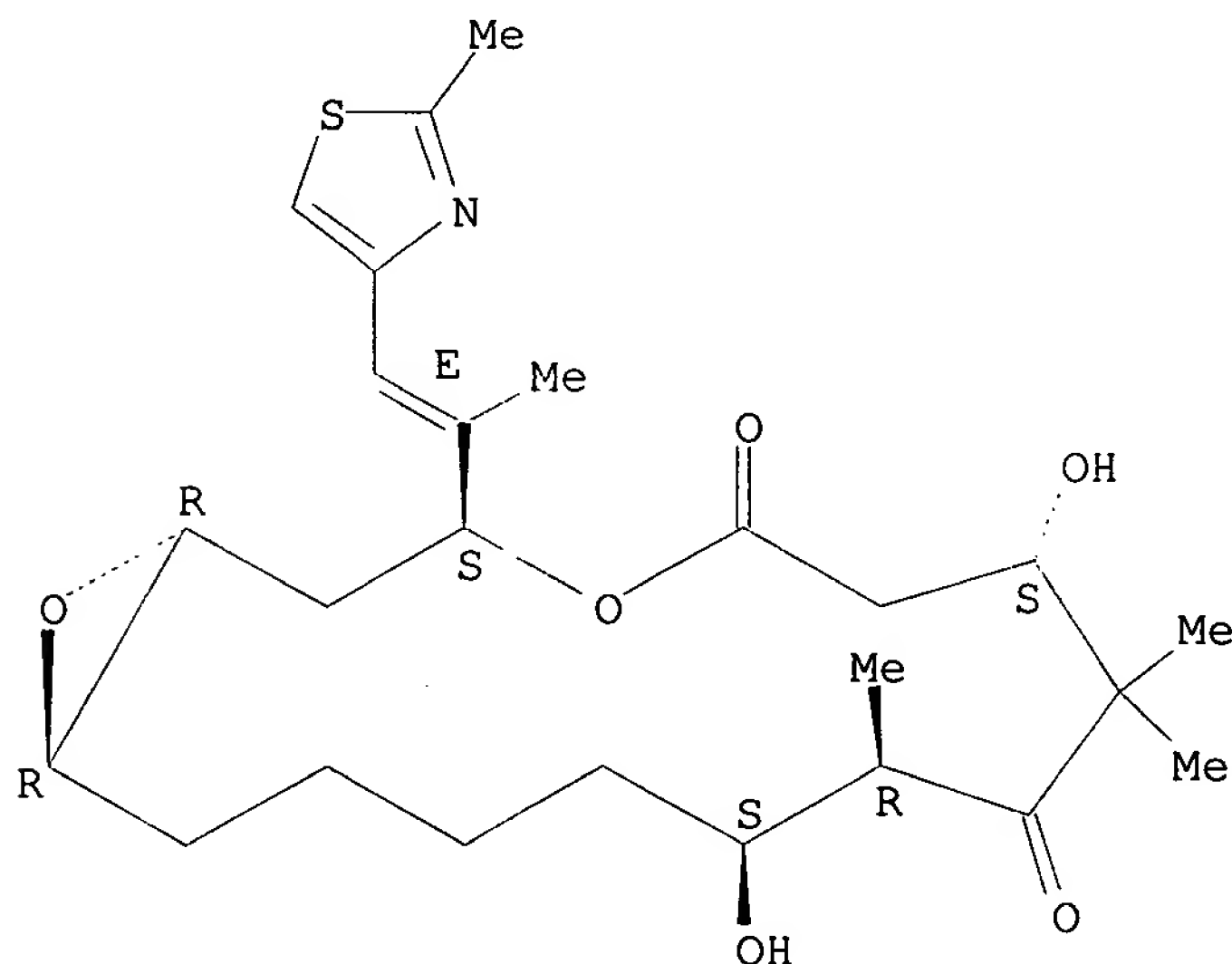


RN 198571-36-7 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10-trimethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10R,11S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

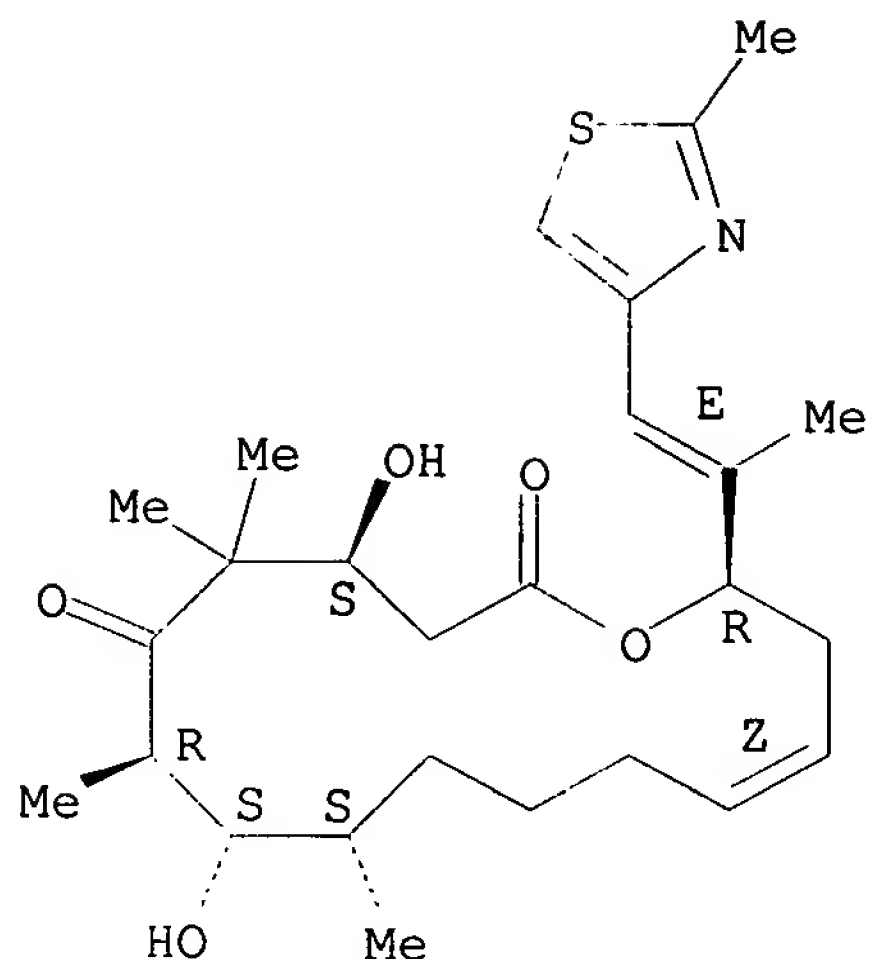


RN 198571-37-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

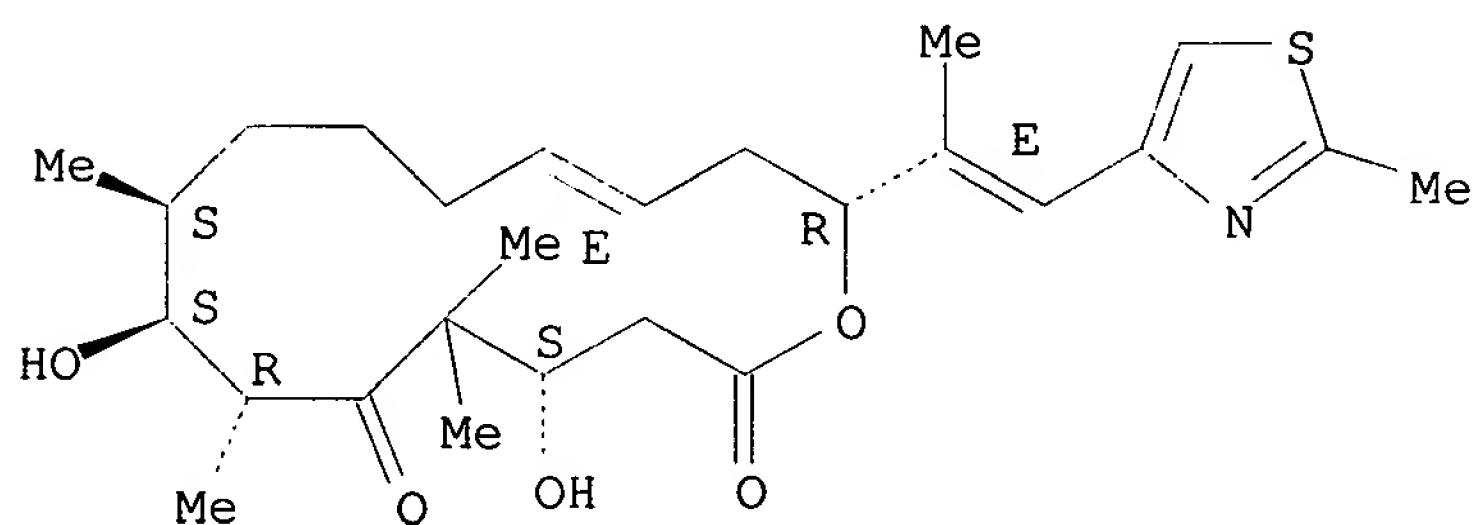
Double bond geometry as shown.



RN 198571-38-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16R)-(9CI) (CA INDEX NAME)

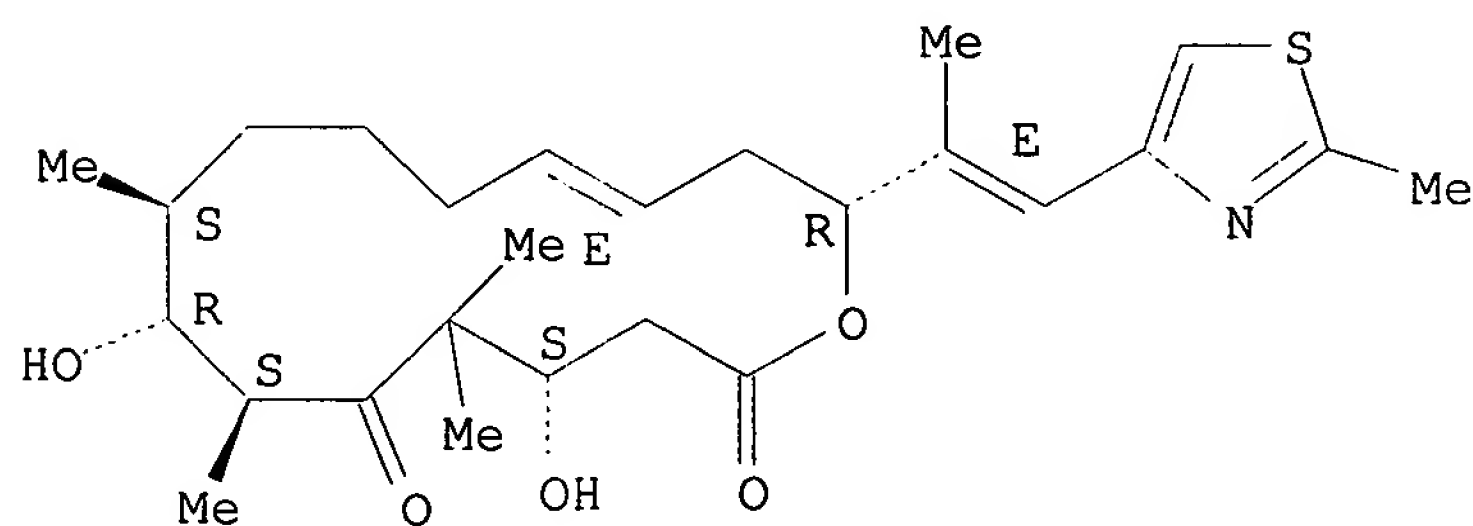
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-39-0 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9S,13E,16R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

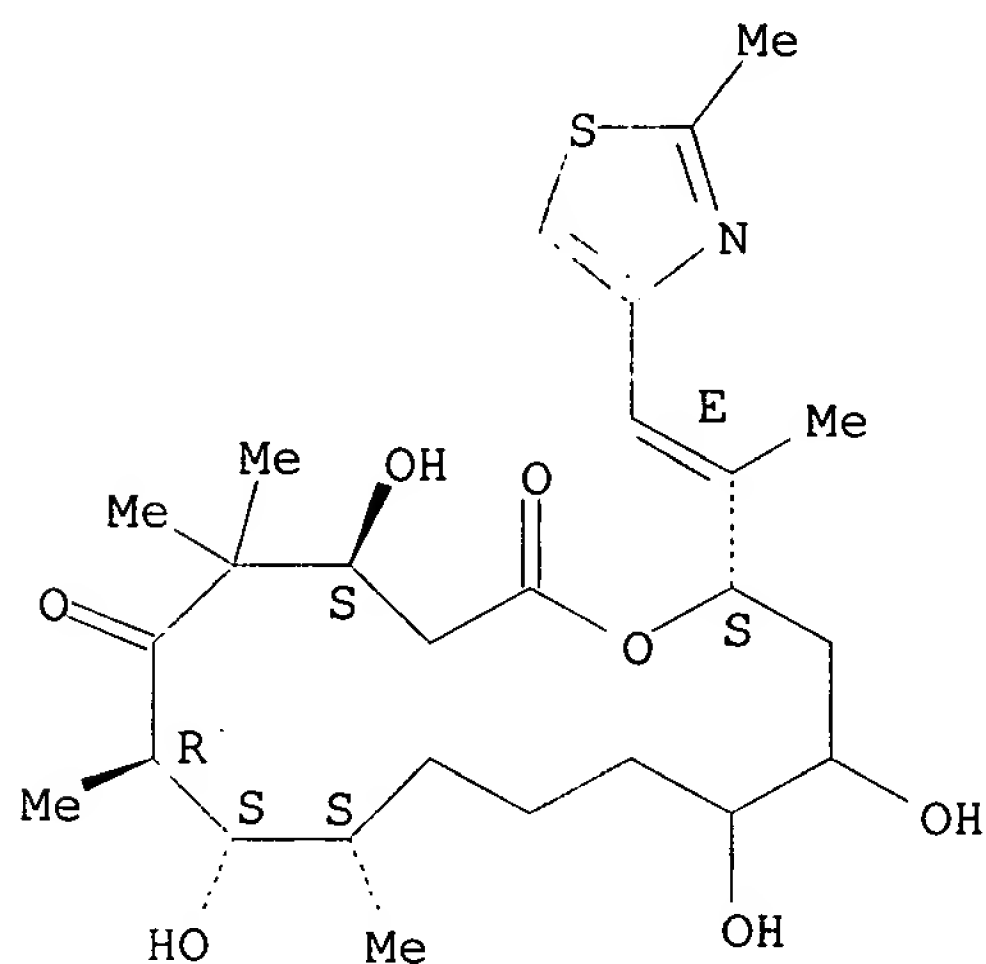


RN 198571-40-3 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 4,8,13,14-tetrahydroxy-5,5,7,9-tetramethyl-

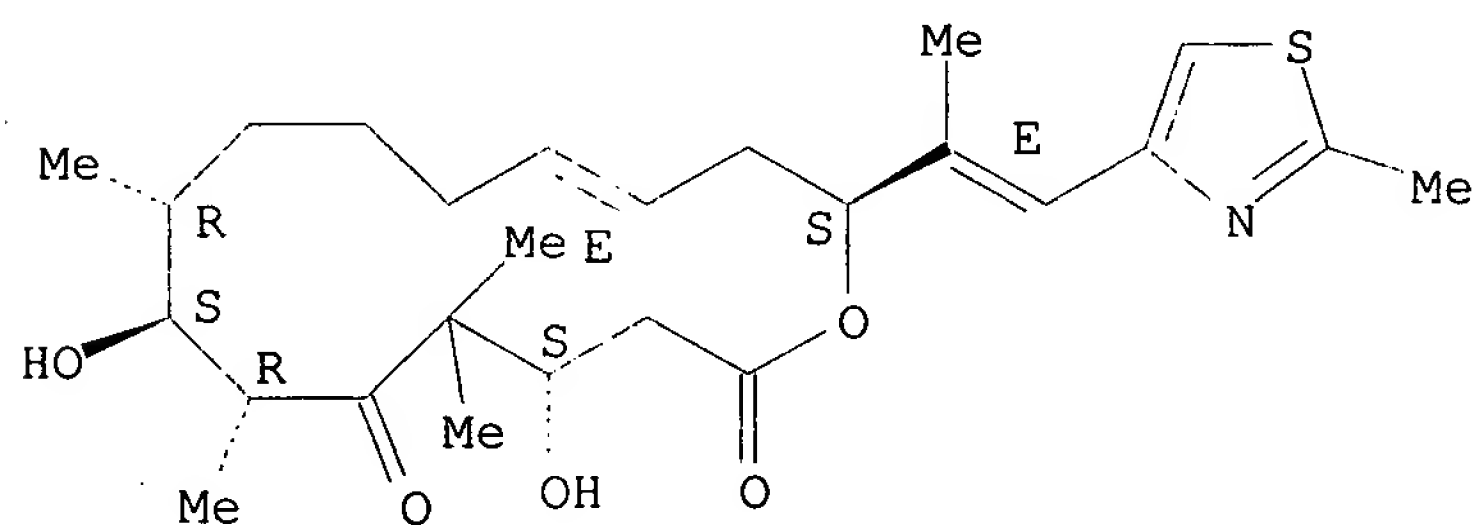
16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



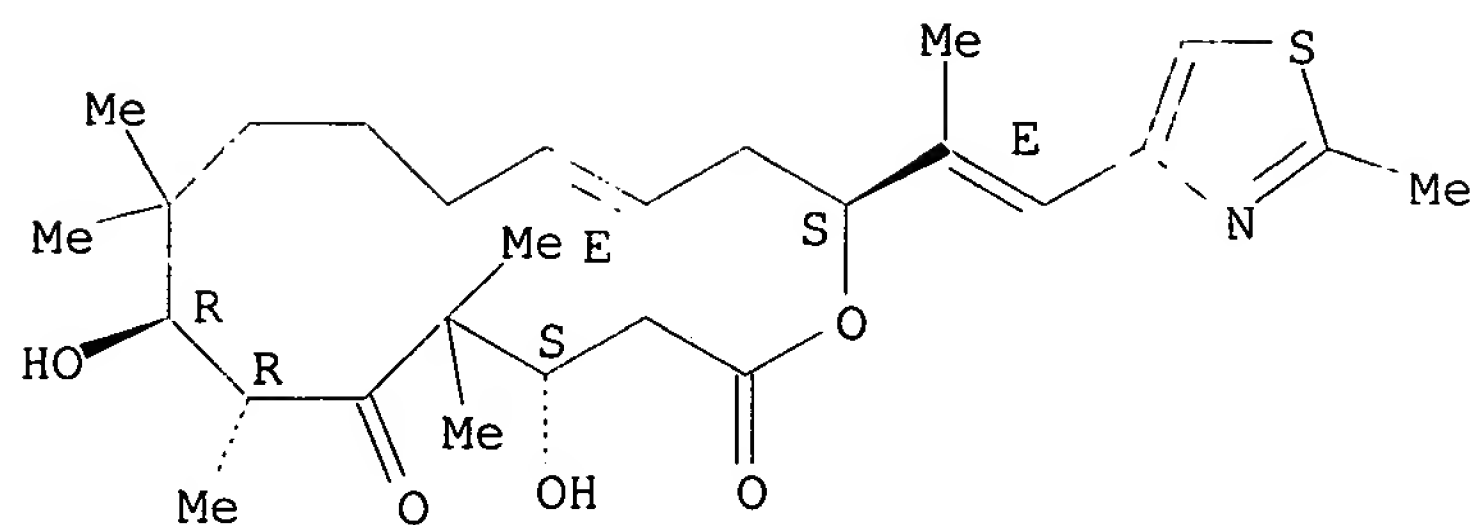
RN 198571-66-3 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9R,13E,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-67-4 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8R,13E,16S)-
(9CI) (CA INDEX NAME)

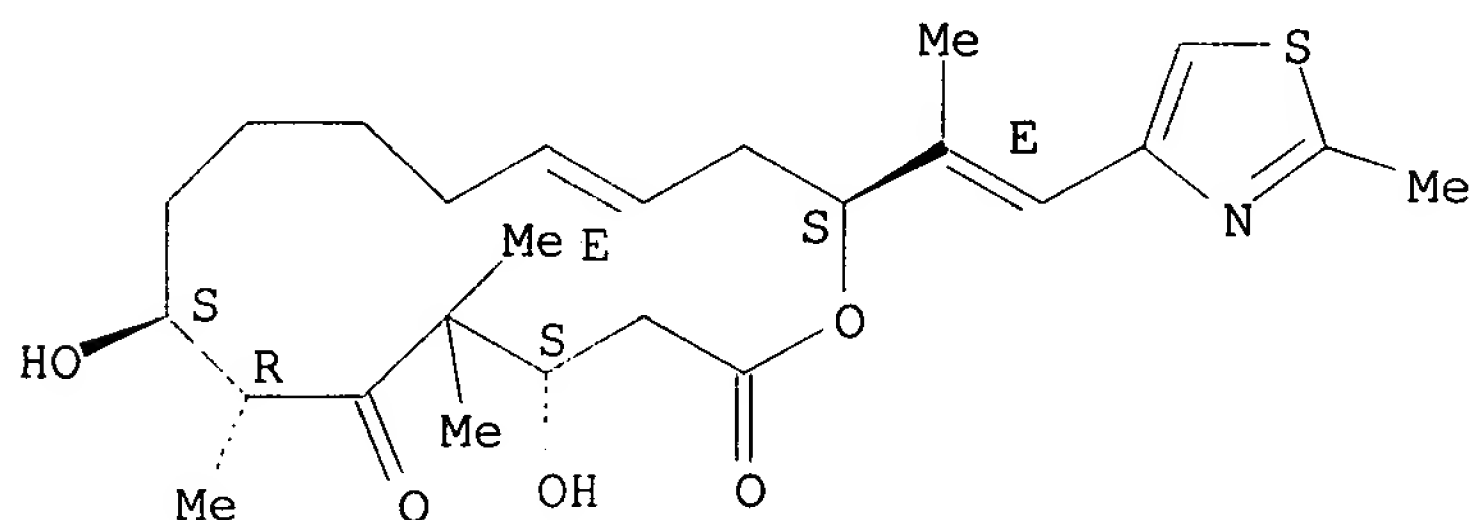
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-68-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7-trimethyl-16-[(1E)-1-
methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,13E,16S)- (9CI) (CA
INDEX NAME)

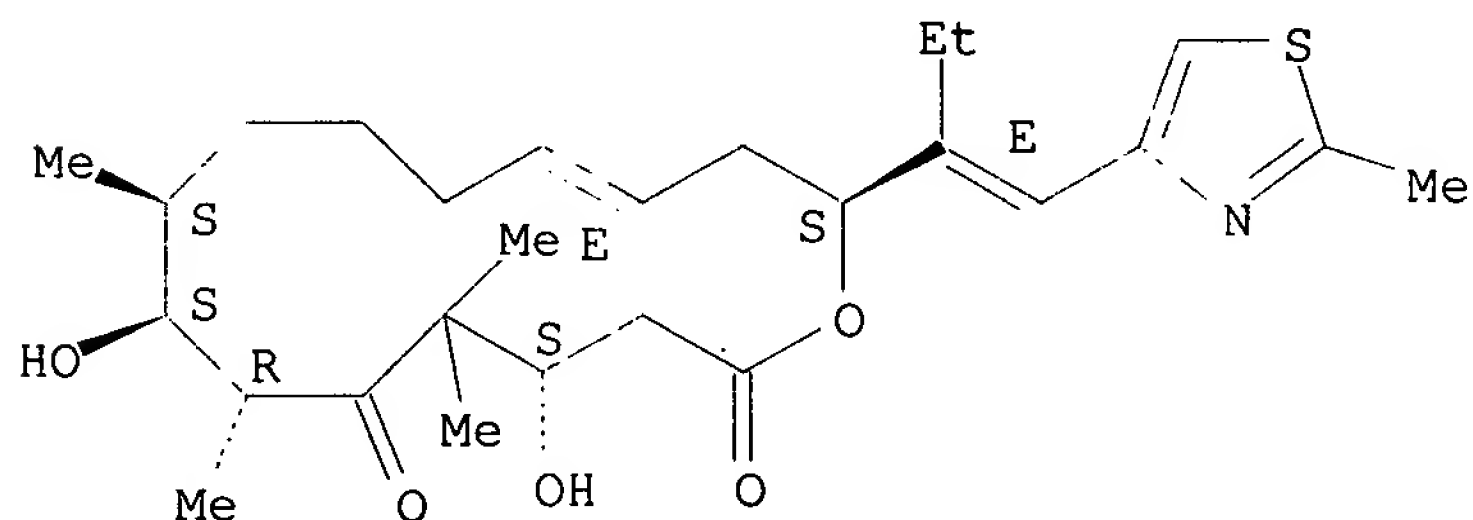
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-69-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-[(2-methyl-4-thiazolyl)methylene]propyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

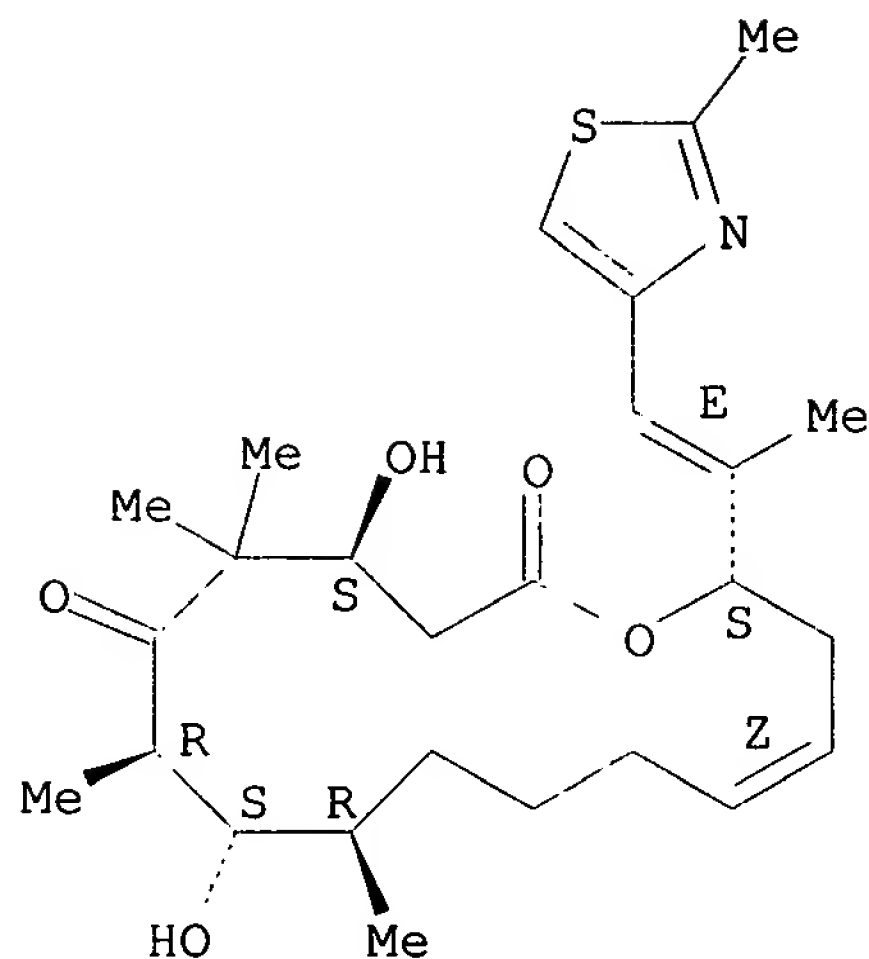
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-70-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9R,13Z,16S)-
(9CI) (CA INDEX NAME)

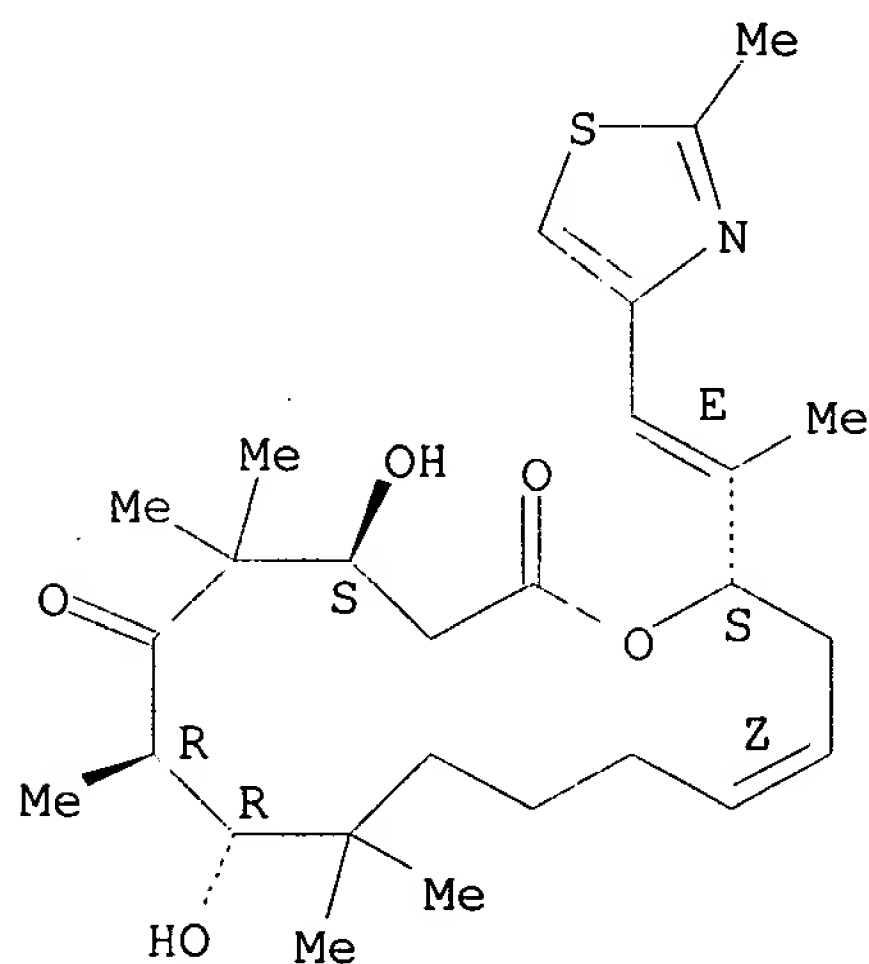
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-71-0 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8R,13Z,16S)- (9CI) (CA INDEX NAME)

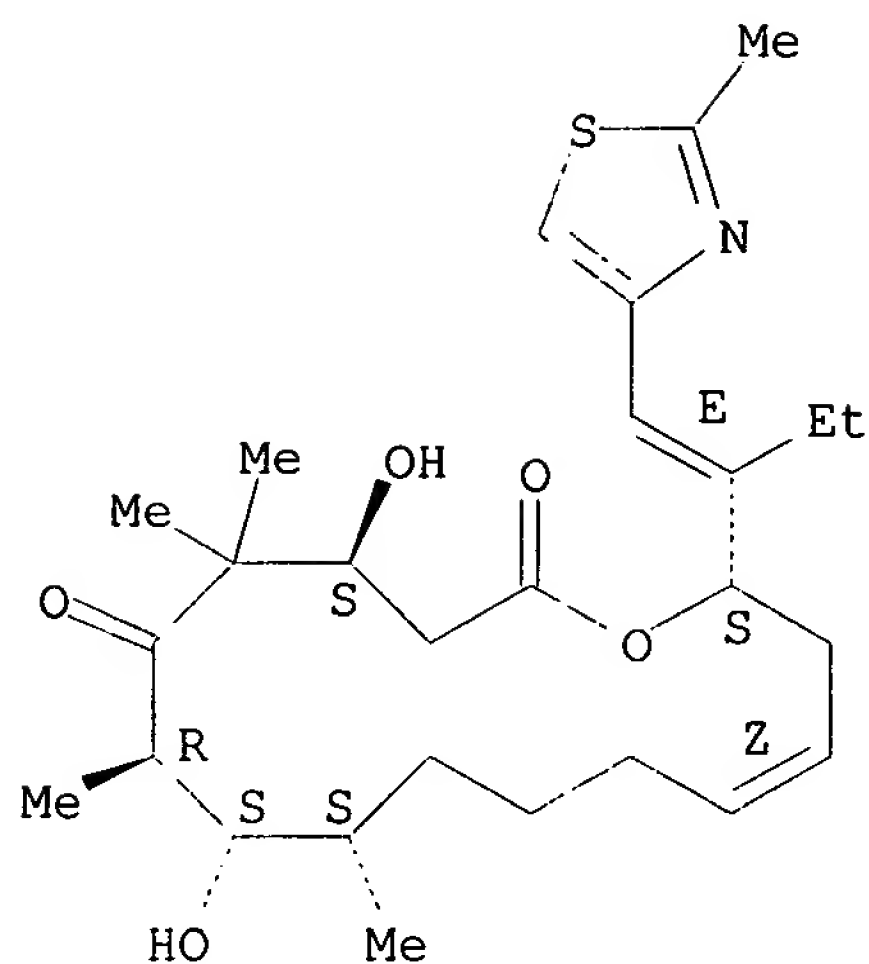
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-72-1 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-[(2-methyl-4-thiazolyl)methylene]propyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

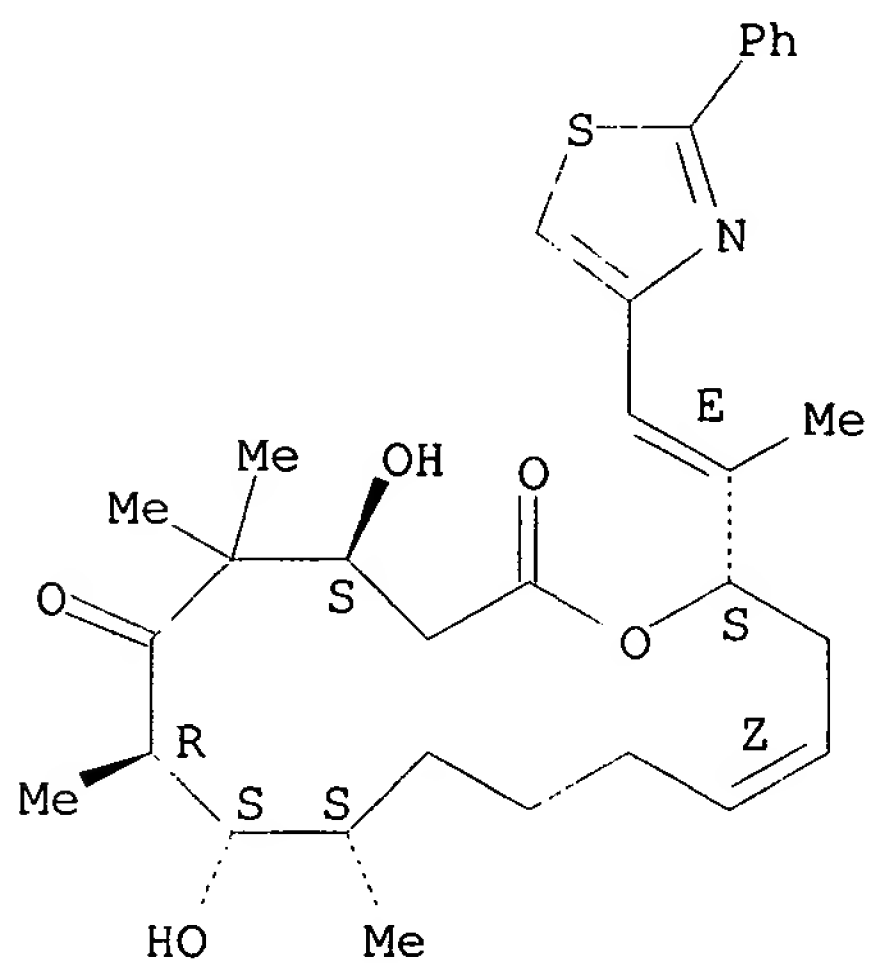


RN 198571-73-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-phenyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

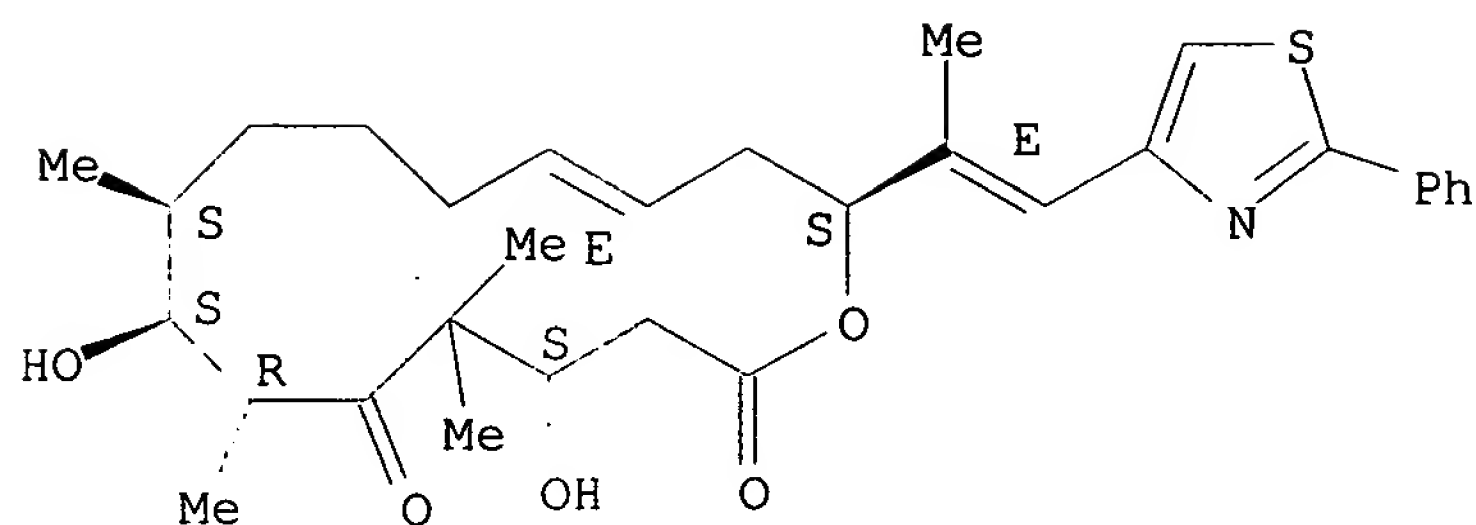


RN 198571-74-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-phenyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

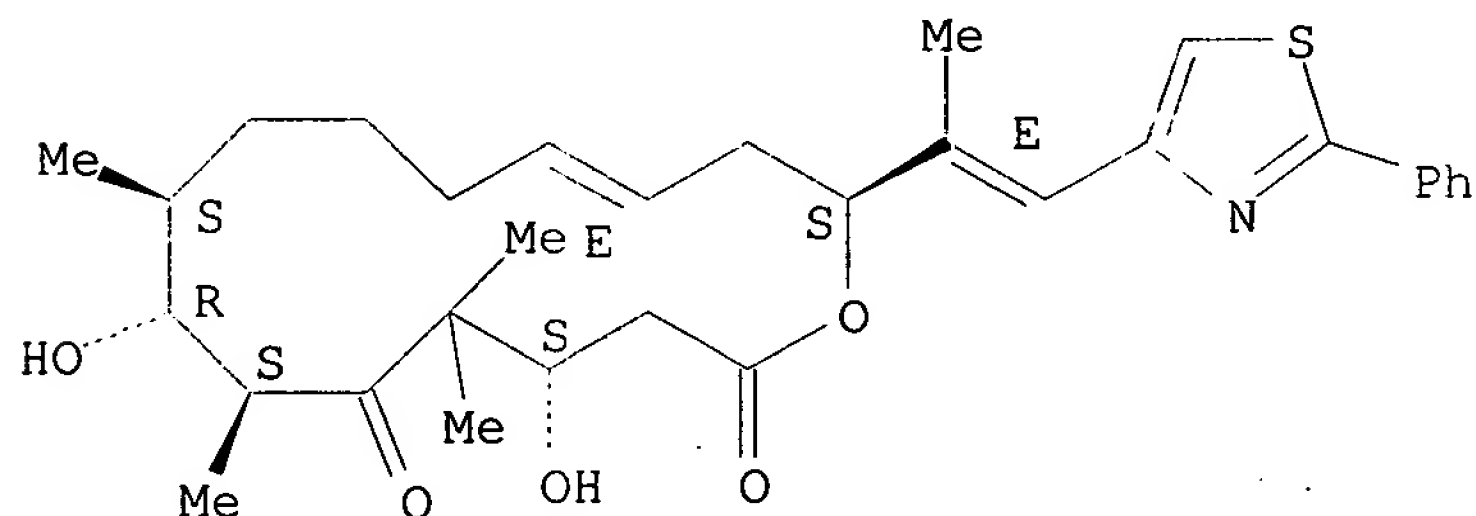


RN 198571-76-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-phenyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9S,13E,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

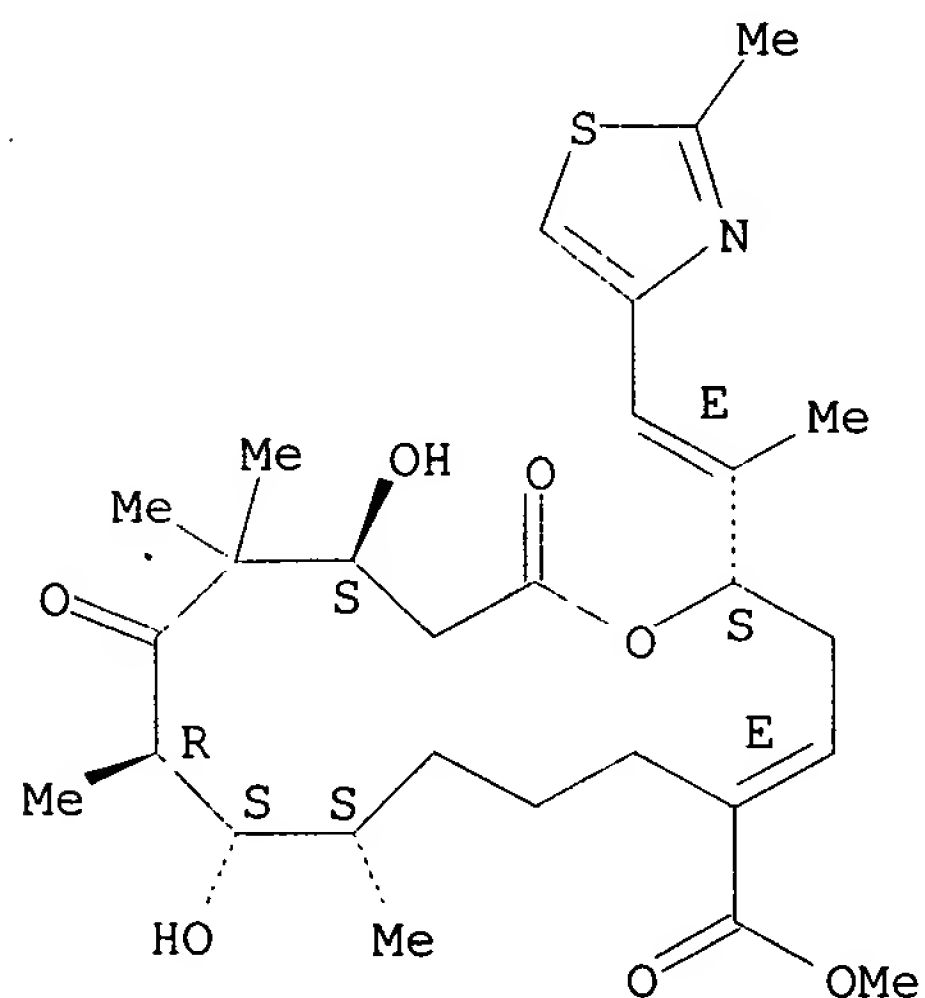


RN 201136-87-0 CAPLUS

CN Oxacyclohexadec-4-ene-5-carboxylic acid, 10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12,16-dioxo-, methyl ester, (2S,4E,9S,10S,11R,14S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

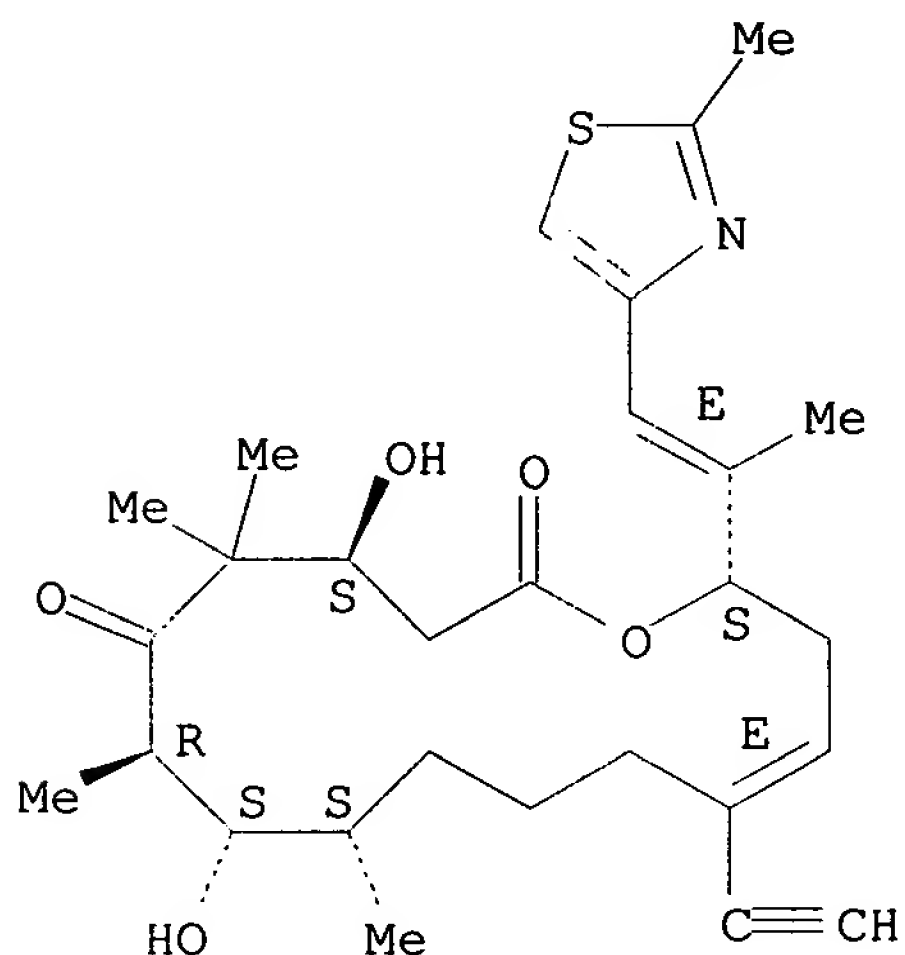


RN 201136-94-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-ethynyl-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

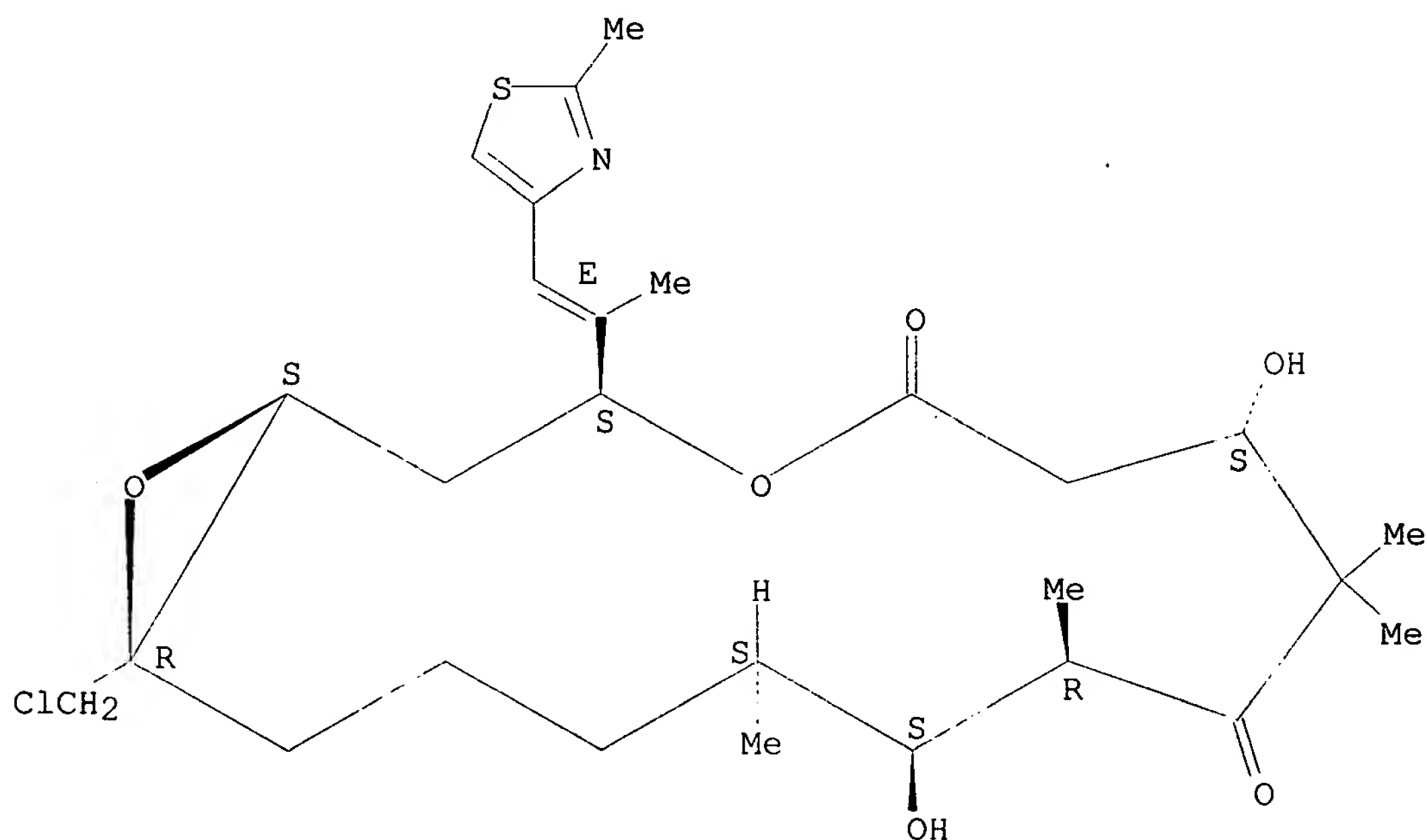


RN 201137-00-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-(chloromethyl)-7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

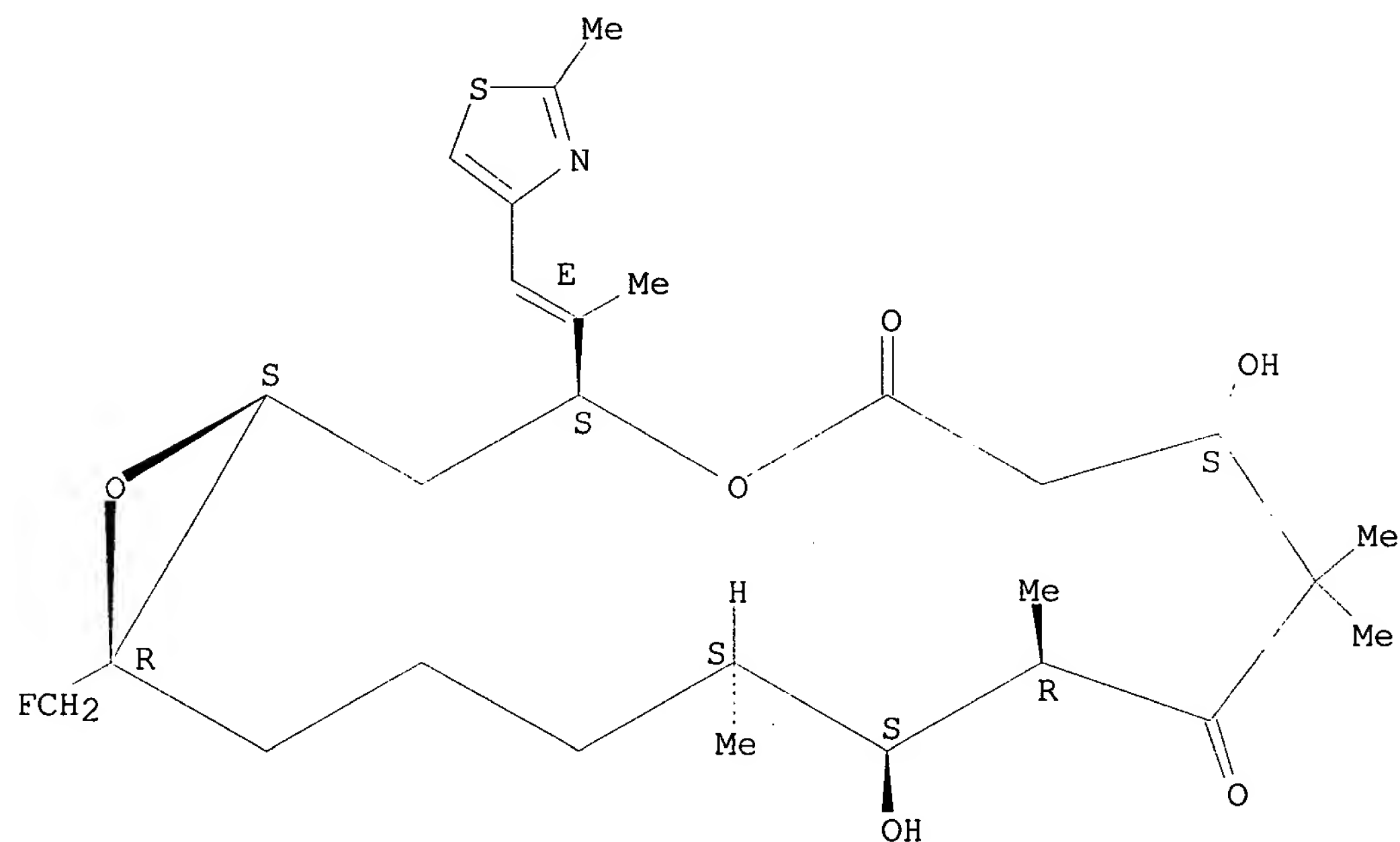


RN 201137-02-2 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-(fluoromethyl)-7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.



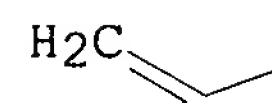
RN 201137-03-3 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione,
16-ethenyl-7,11-dihydroxy-
8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

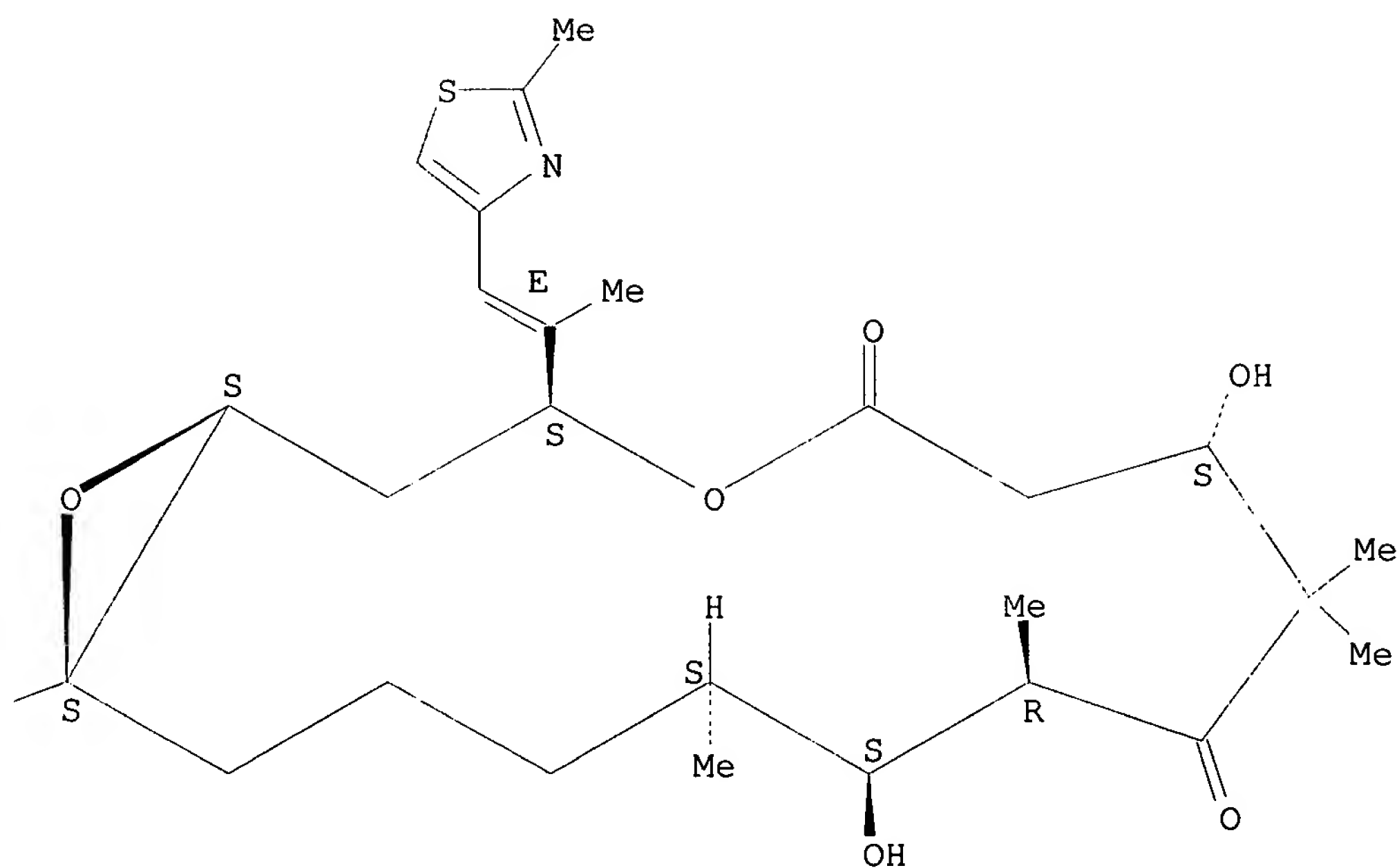
Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

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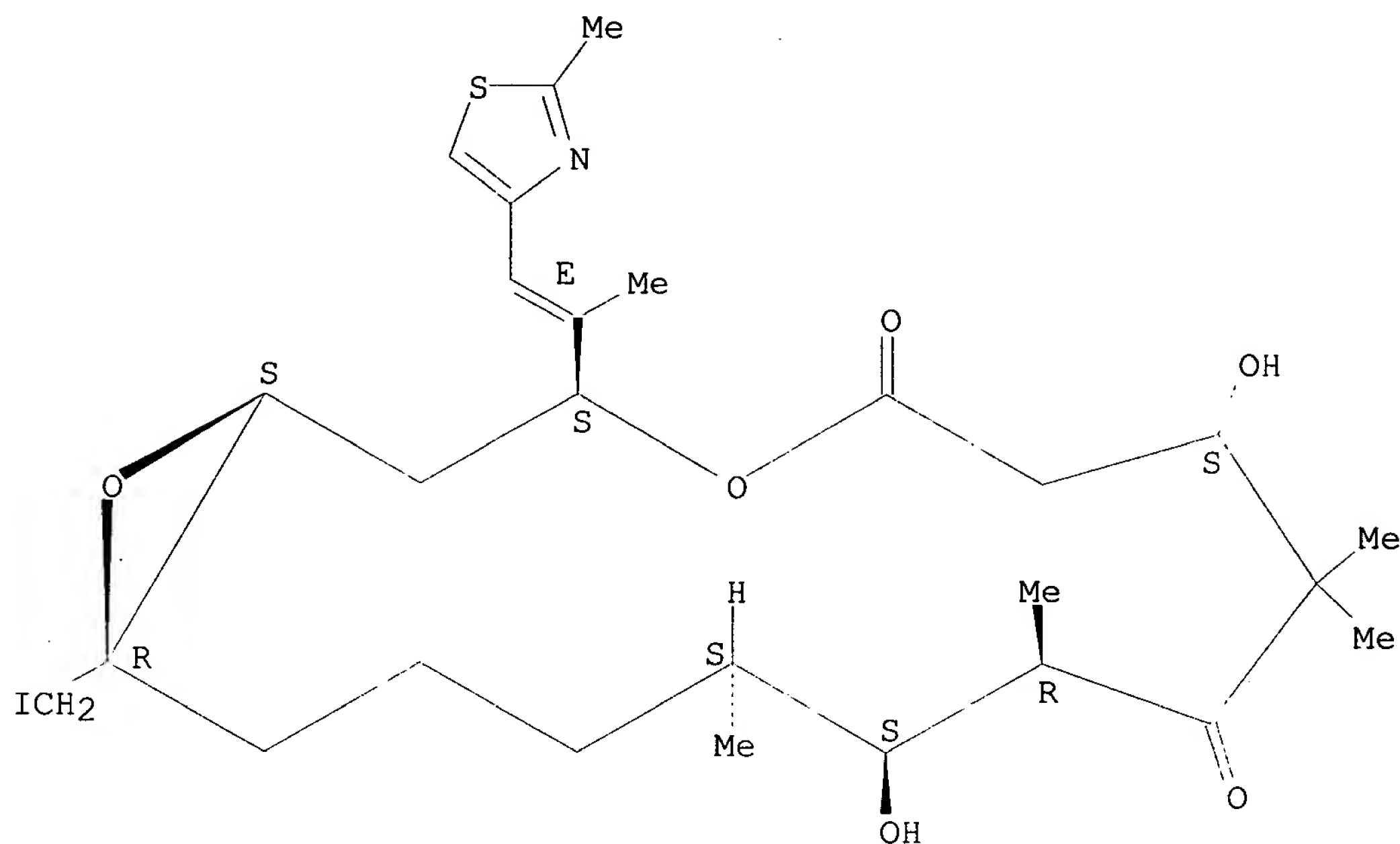


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RN 201137-04-4 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-16-(iodomethyl)-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

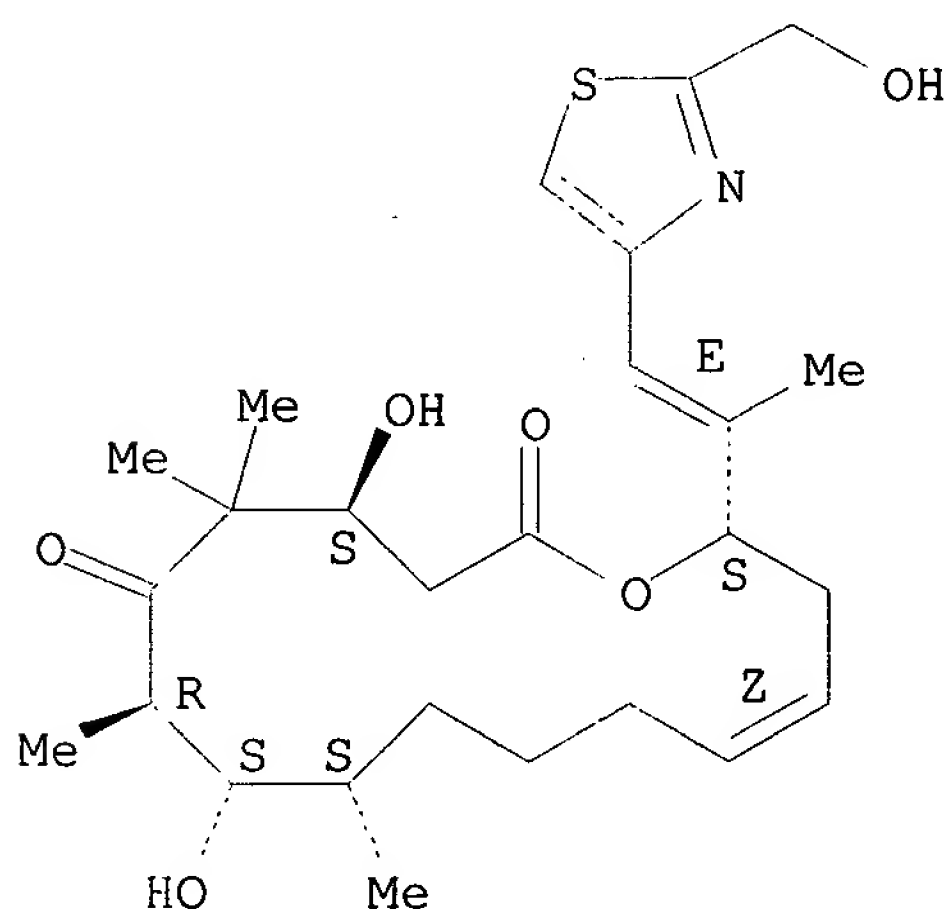
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 204513-12-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-16-[(1E)-2-[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

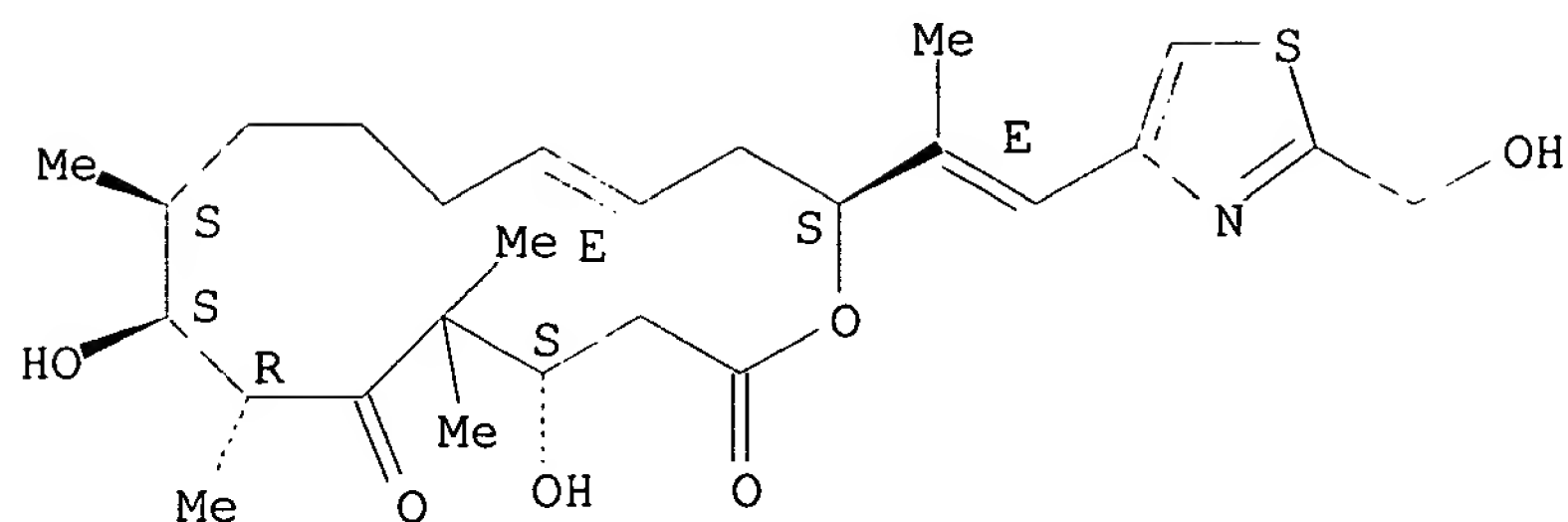
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 204513-14-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-16-[(1E)-2-[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

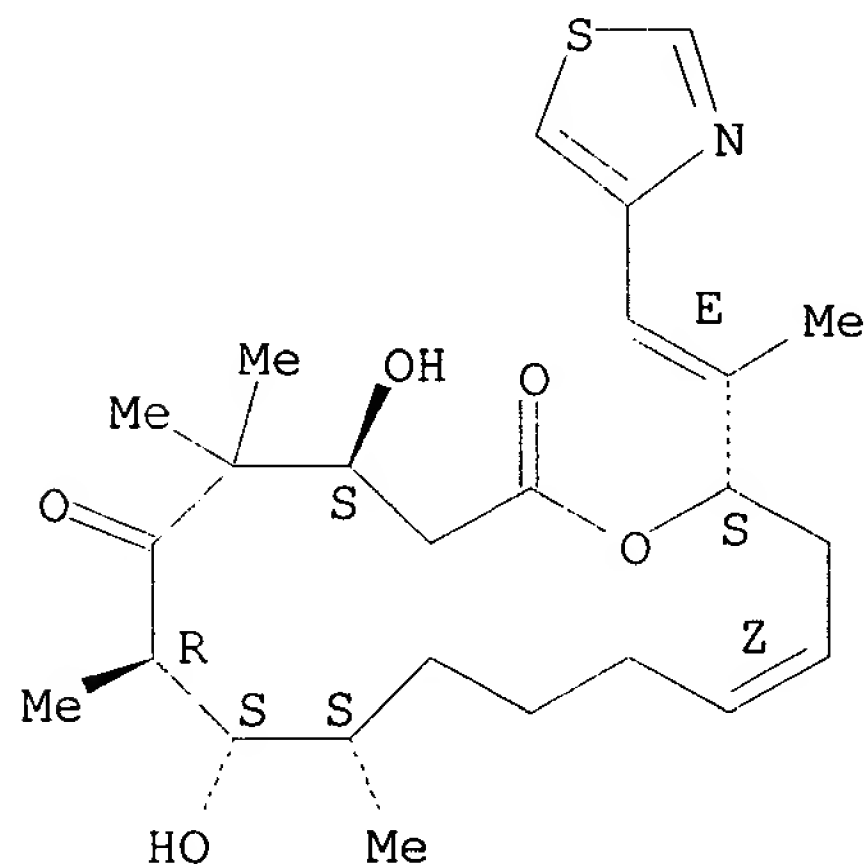


RN 204513-35-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI)

(CA INDEX NAME)

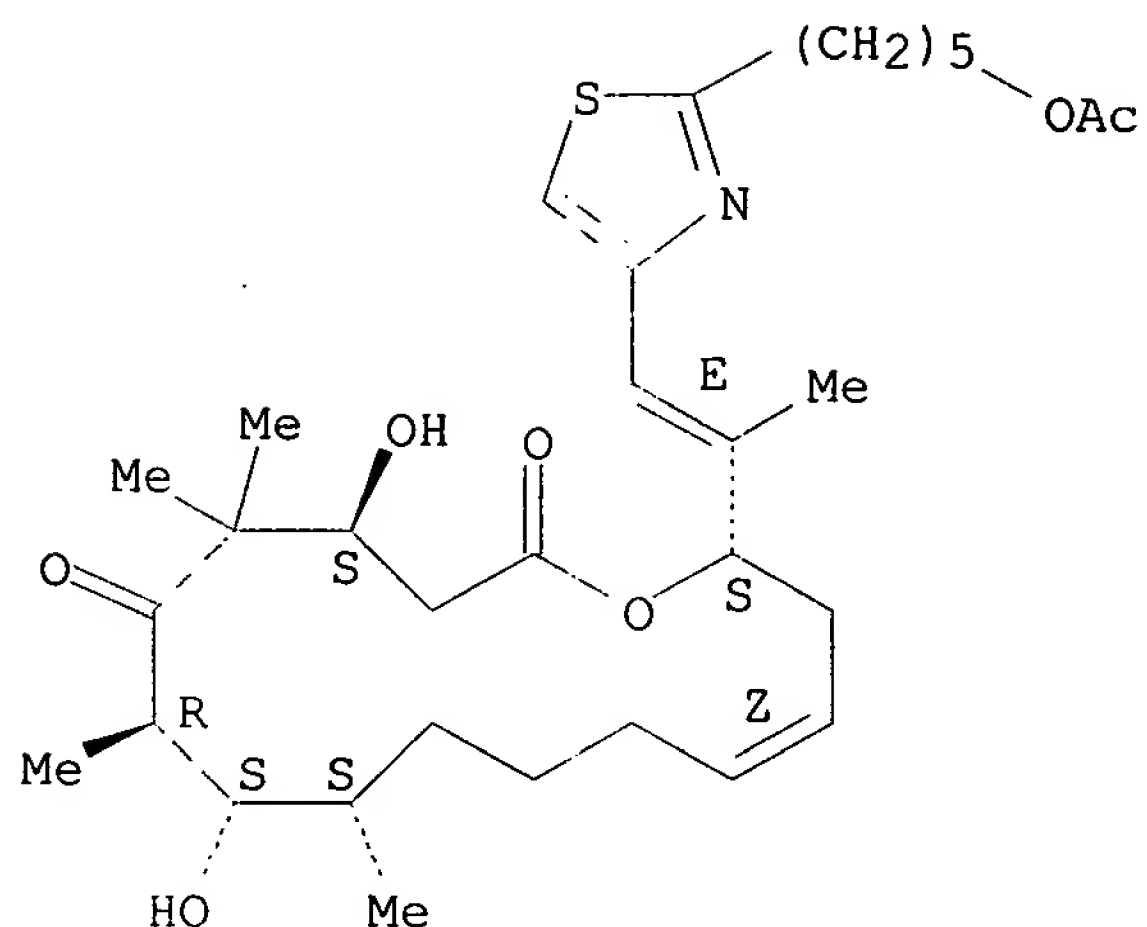
Absolute stereochemistry.
Double bond geometry as shown.



RN 204513-38-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 16-[(1E)-2-[2-[5-(acetyloxy)pentyl]-4-thiazolyl]-1-methylethenyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

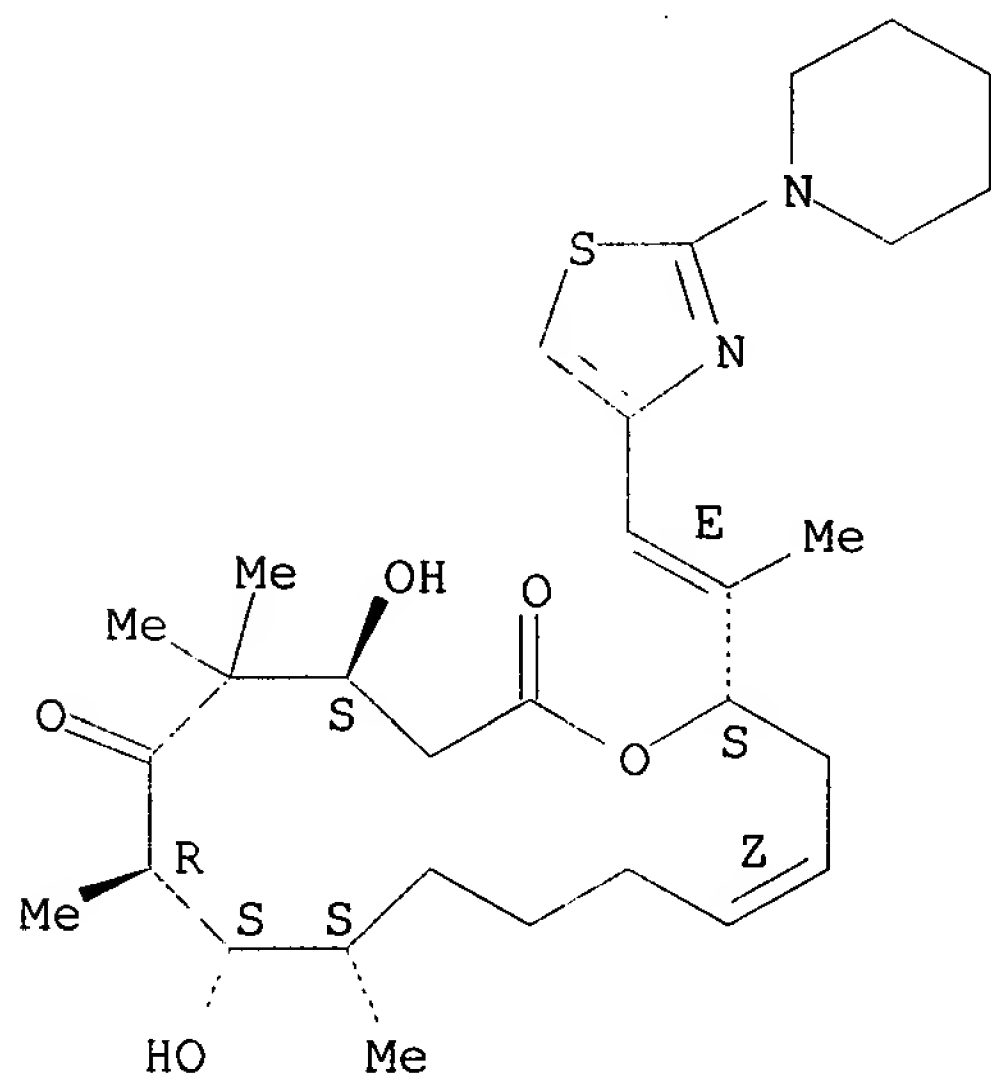
Absolute stereochemistry.
Double bond geometry as shown.



RN 204513-39-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-[2-(1-piperidiny)-4-thiazolyl]ethenyl]-,
(4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

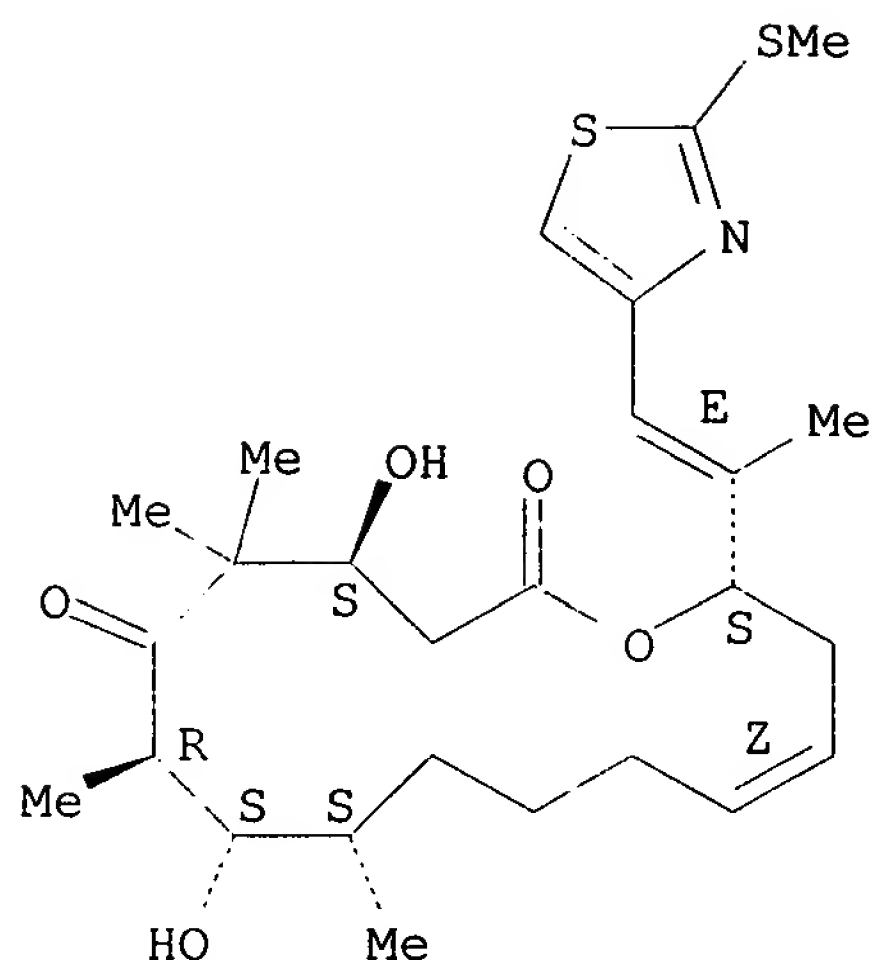
Absolute stereochemistry.
Double bond geometry as shown.



RN 204513-40-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-[2-(methylthio)-4-thiazolyl]ethenyl]-,
(4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

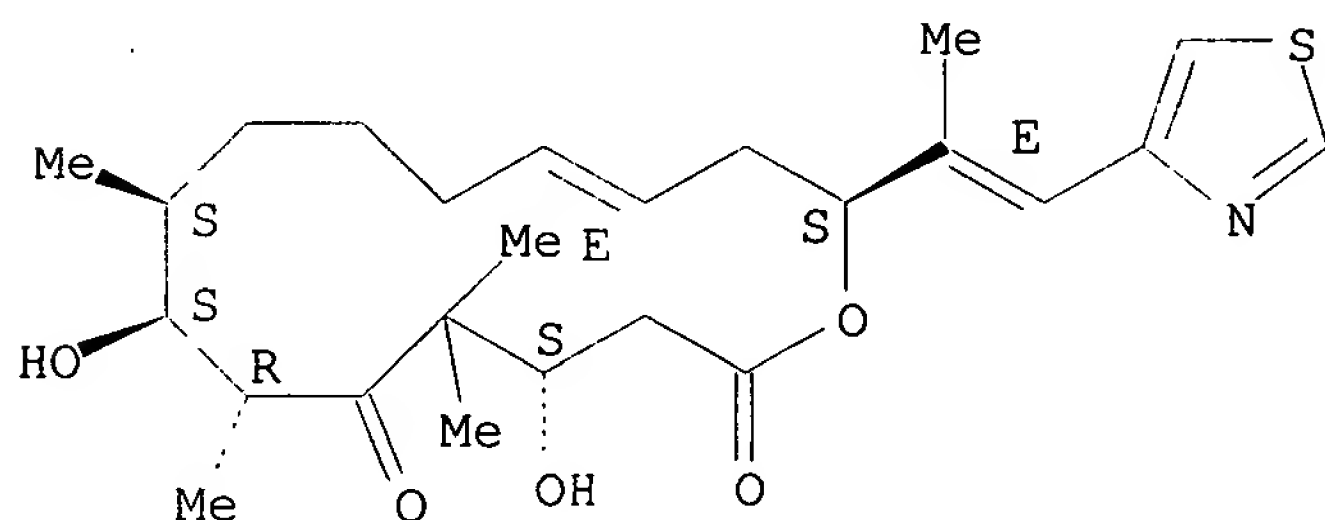


RN 204513-45-1 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI)

(CA INDEX NAME)

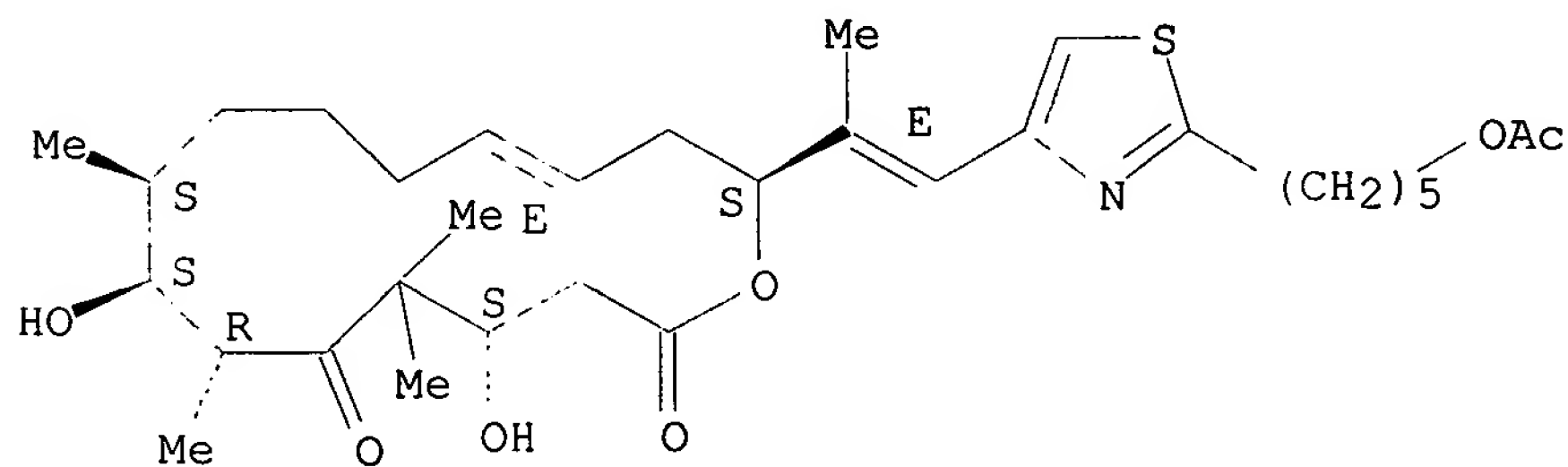
Absolute stereochemistry.
Double bond geometry as shown.



RN 204513-48-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 16-[(1E)-2-[2-[5-(acetyloxy)pentyl]-4-thiazolyl]-1-methylethenyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

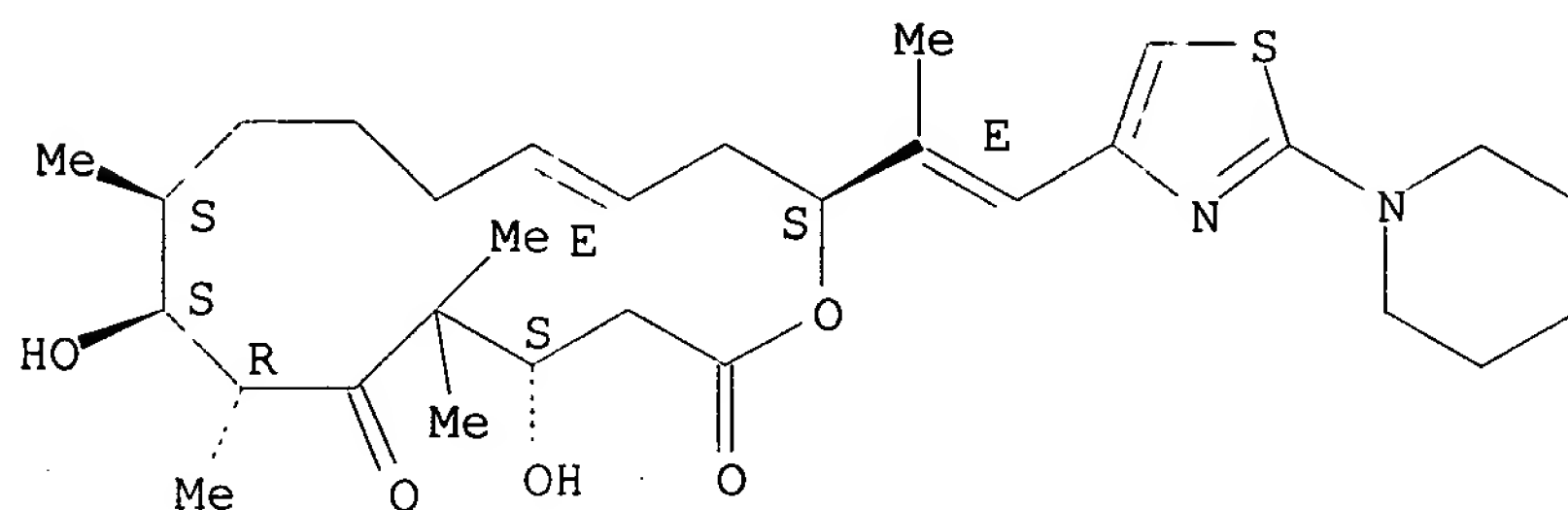


RN 204513-49-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-[2-(1-piperidinyl)-4-thiazolyl]ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

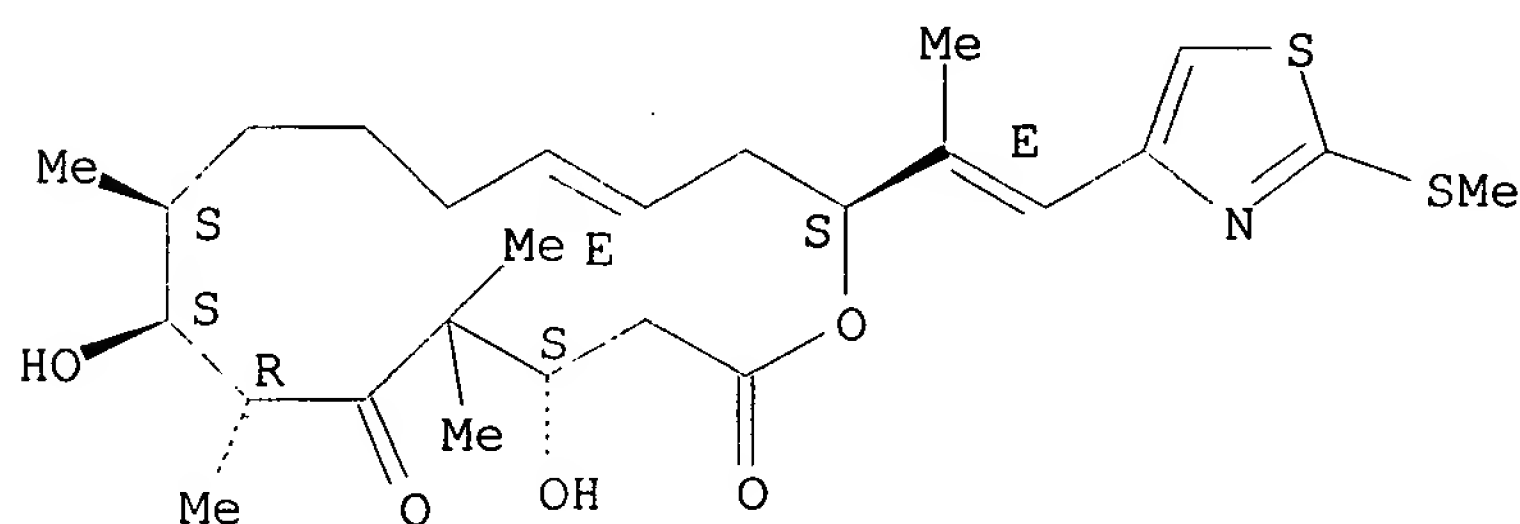


RN 204513-50-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-[2-(methylthio)-4-thiazolyl]ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

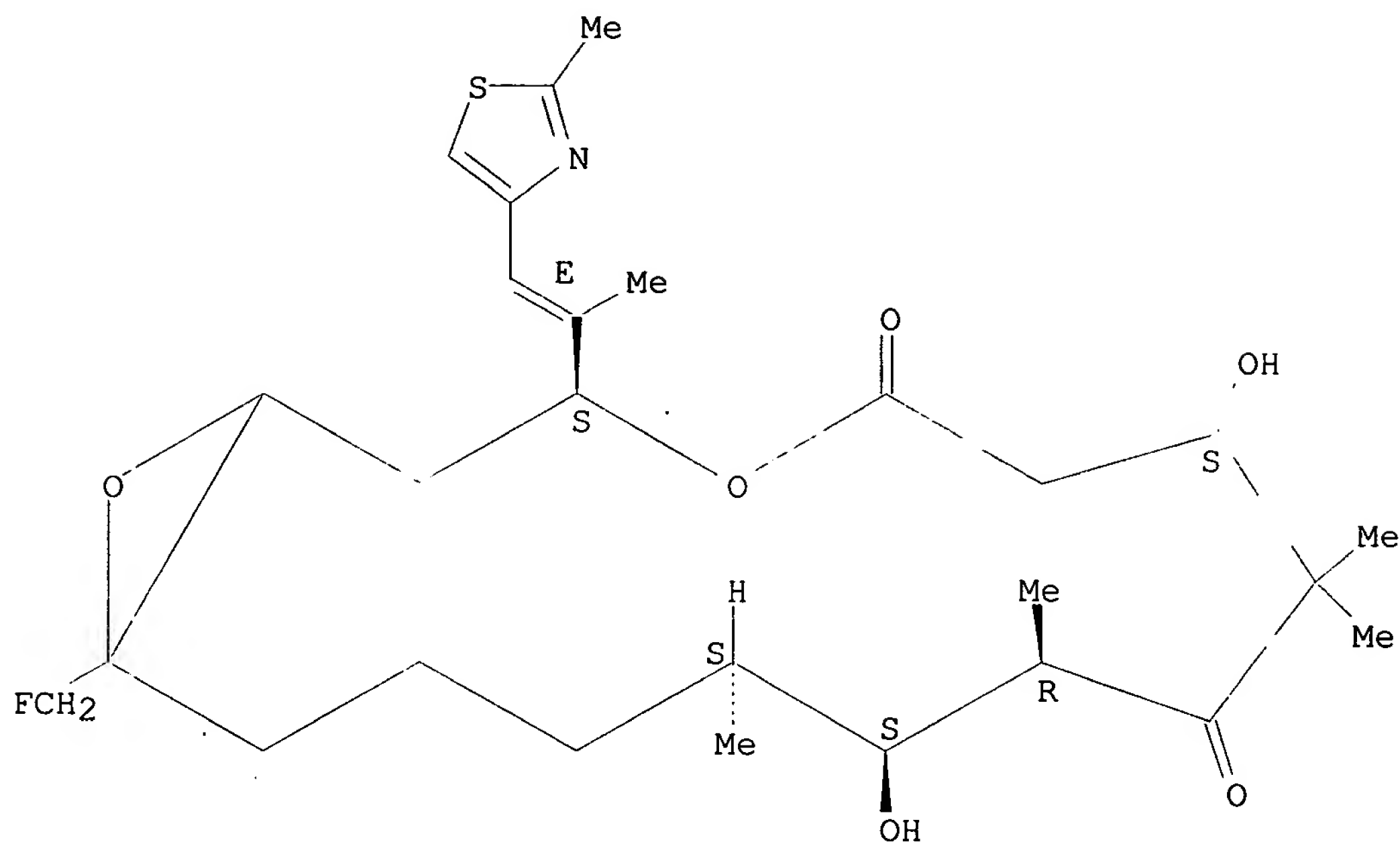


RN 209260-84-4 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-(fluoromethyl)-7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (3S,7S,10R,11S,12S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

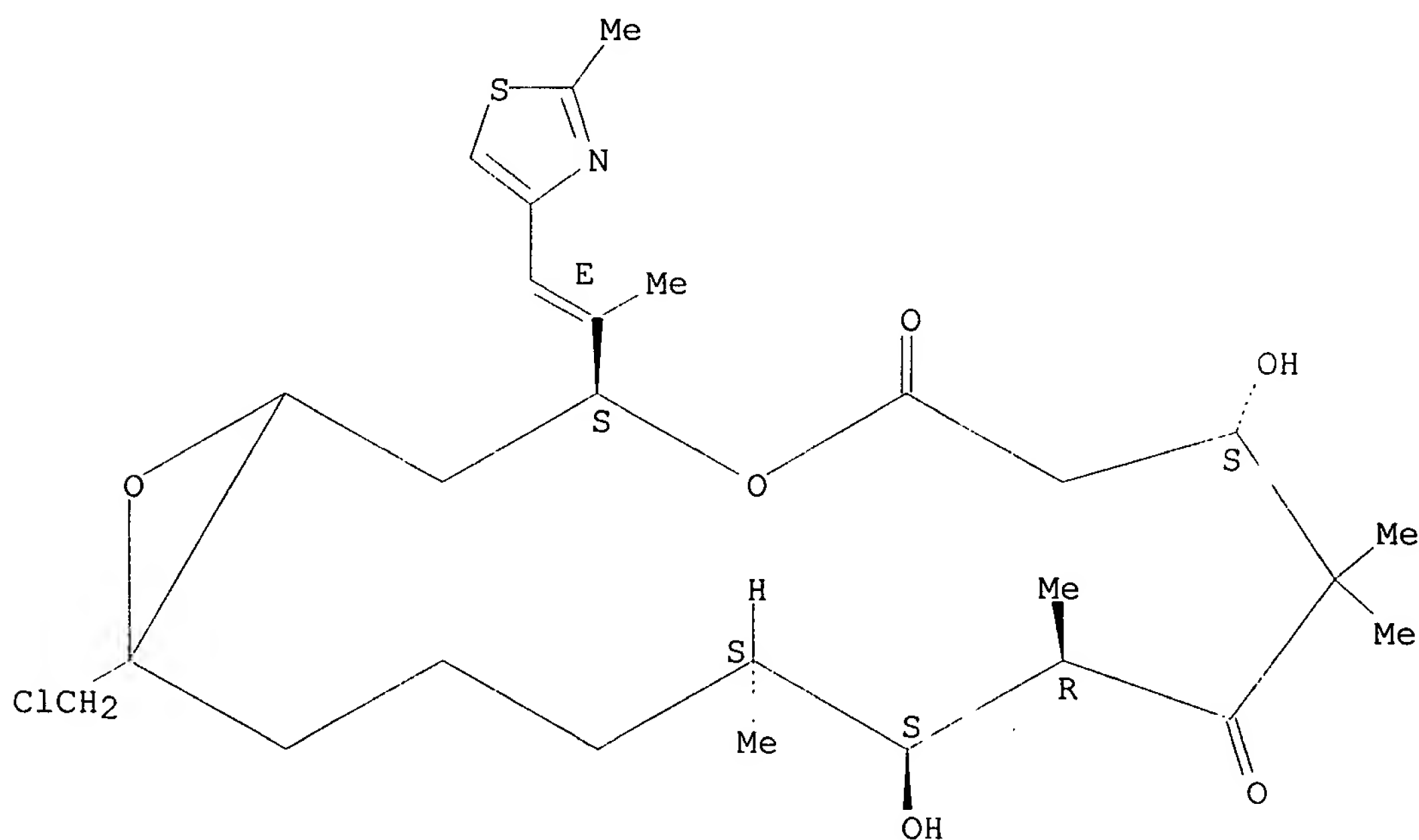
Double bond geometry as shown.



RN 209260-86-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-(chloromethyl)-7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (3S,7S,10R,11S,12S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

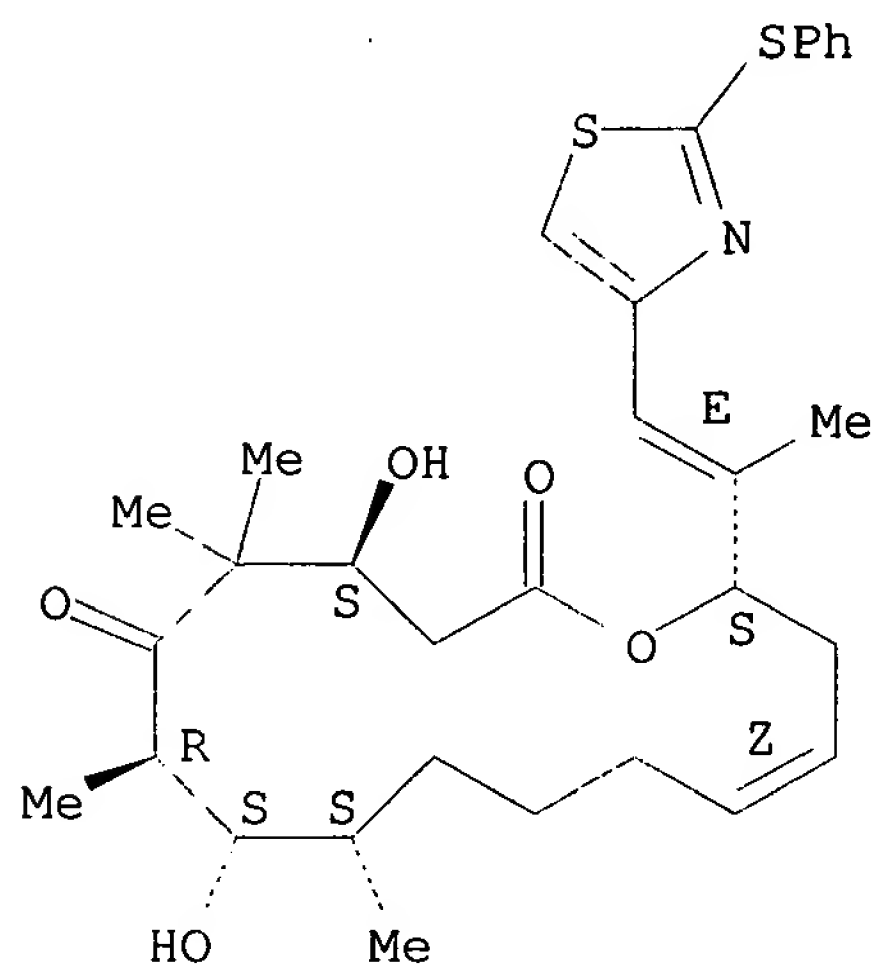


RN 209260-87-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-

[(1E)-1-methyl-2-[2-(phenylthio)-4-thiazolyl]ethenyl]-,
(4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

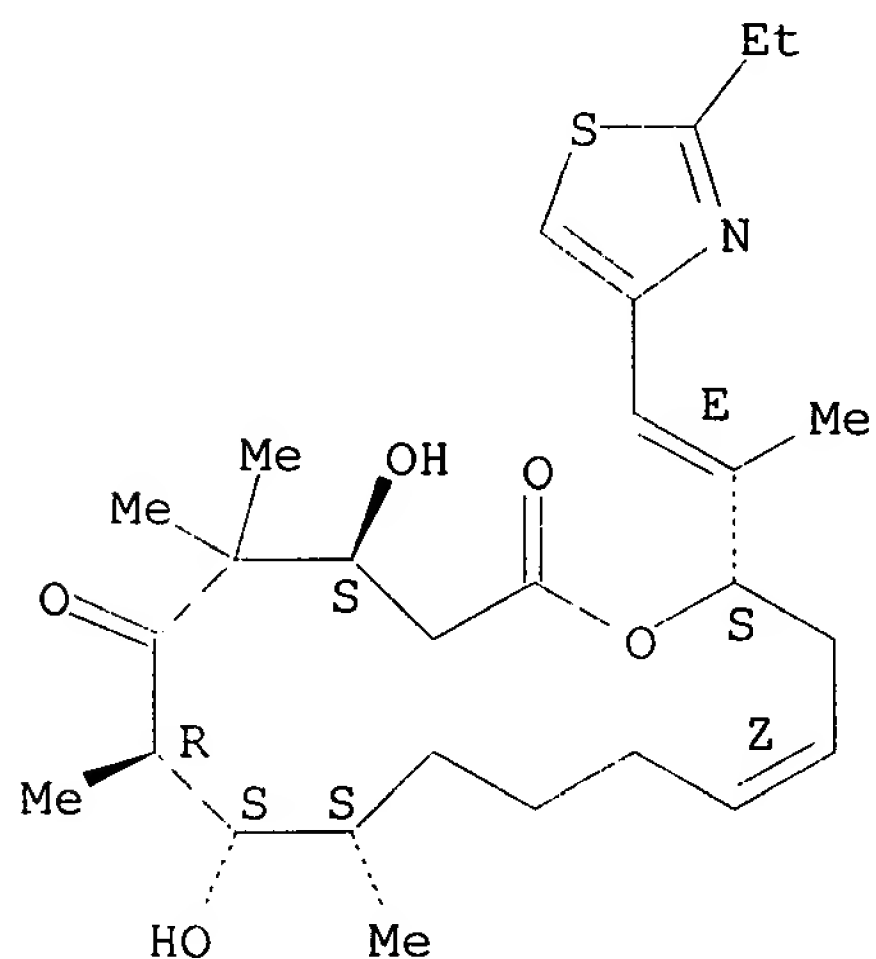
Absolute stereochemistry.
Double bond geometry as shown.



RN 209260-88-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 16-[(1E)-2-(2-ethyl-4-thiazolyl)-1-methylethenyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

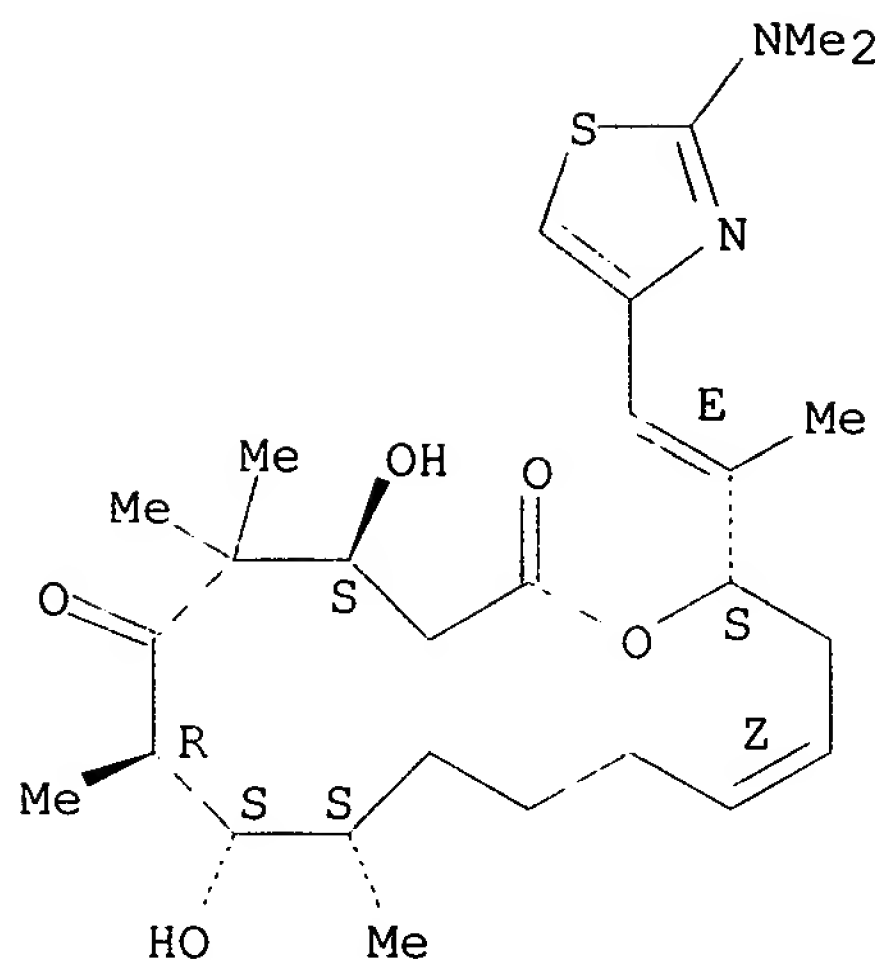
Absolute stereochemistry.
Double bond geometry as shown.



RN 209260-89-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 16-[(1E)-2-[2-(dimethylamino)-4-thiazolyl]-1-methylethenyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

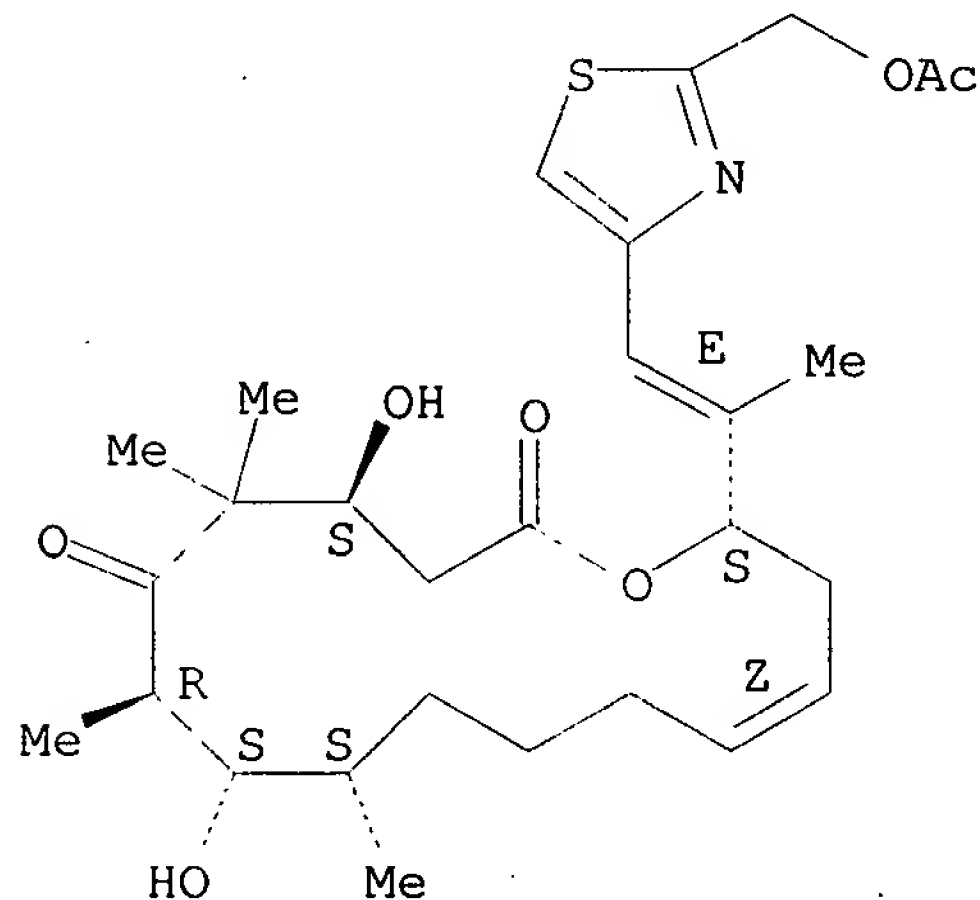
Absolute stereochemistry.
Double bond geometry as shown.



RN 209260-90-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 16-[(1E)-2-[2-[(acetyloxy)methyl]-4-thiazolyl]-1-methylethenyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

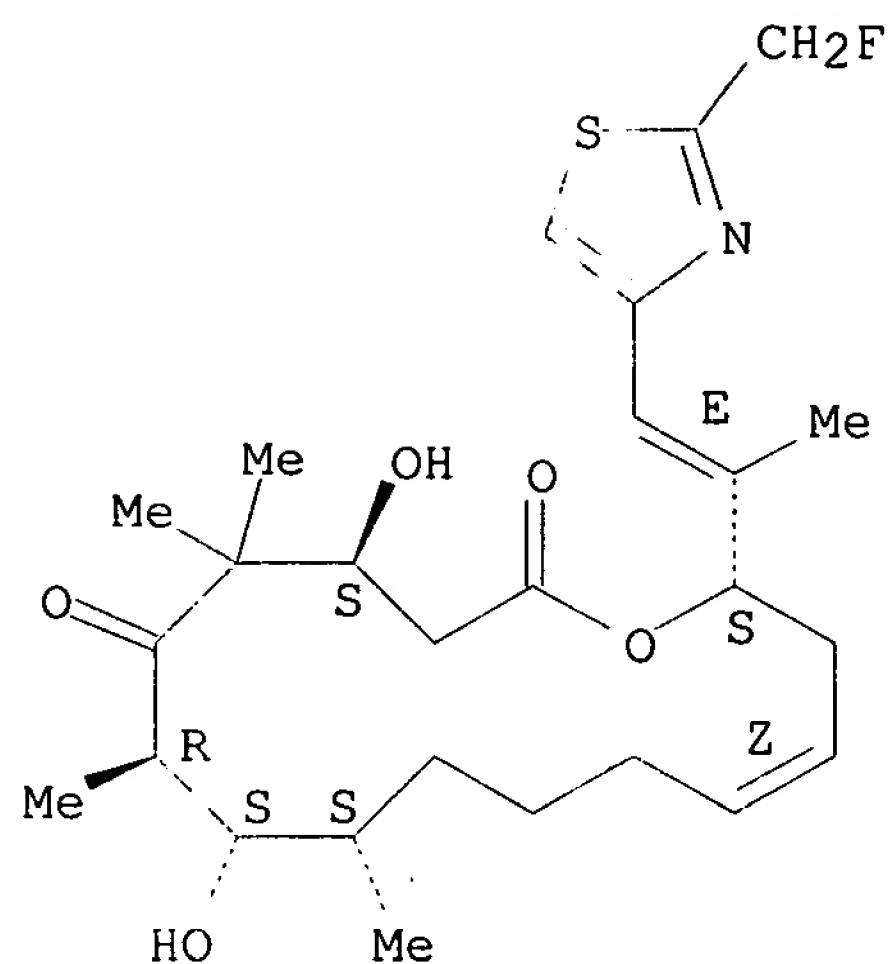
Absolute stereochemistry.
Double bond geometry as shown.



RN 209260-91-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 16-[(1E)-2-[2-(fluoromethyl)-4-thiazolyl]-1-methylethenyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

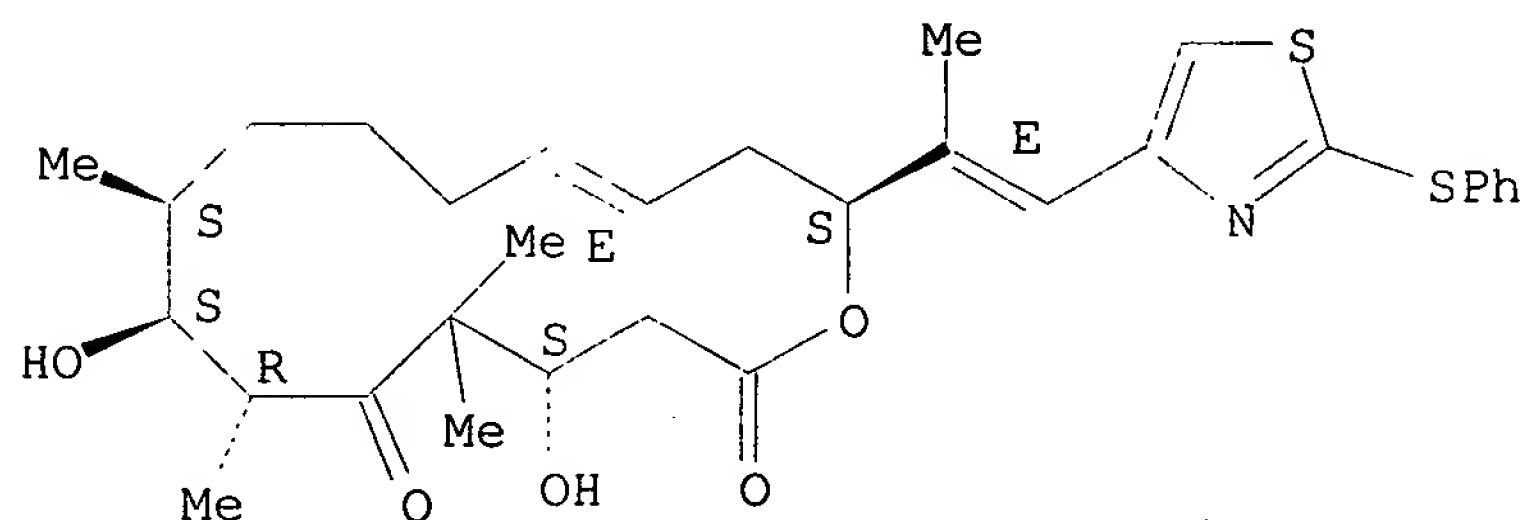
Absolute stereochemistry.
Double bond geometry as shown.



RN 209260-93-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-[2-(phenylthio)-4-thiazolyl]ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

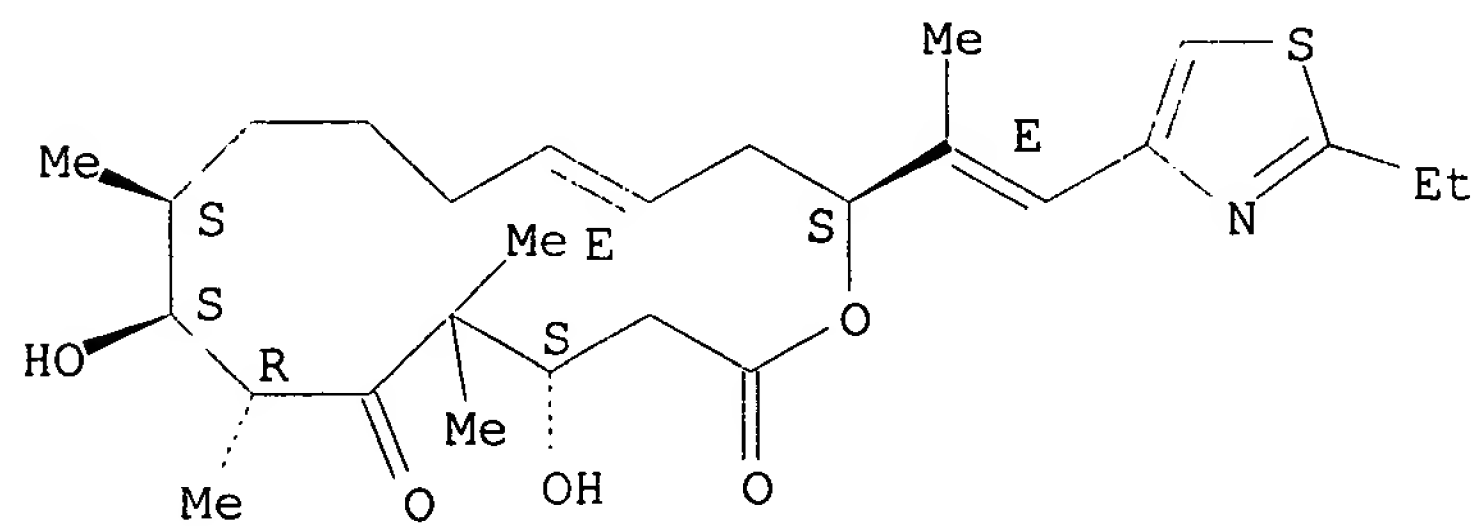
Absolute stereochemistry.
Double bond geometry as shown.



RN 209260-94-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 16-[(1E)-2-(2-ethyl-4-thiazolyl)-1-methylethenyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

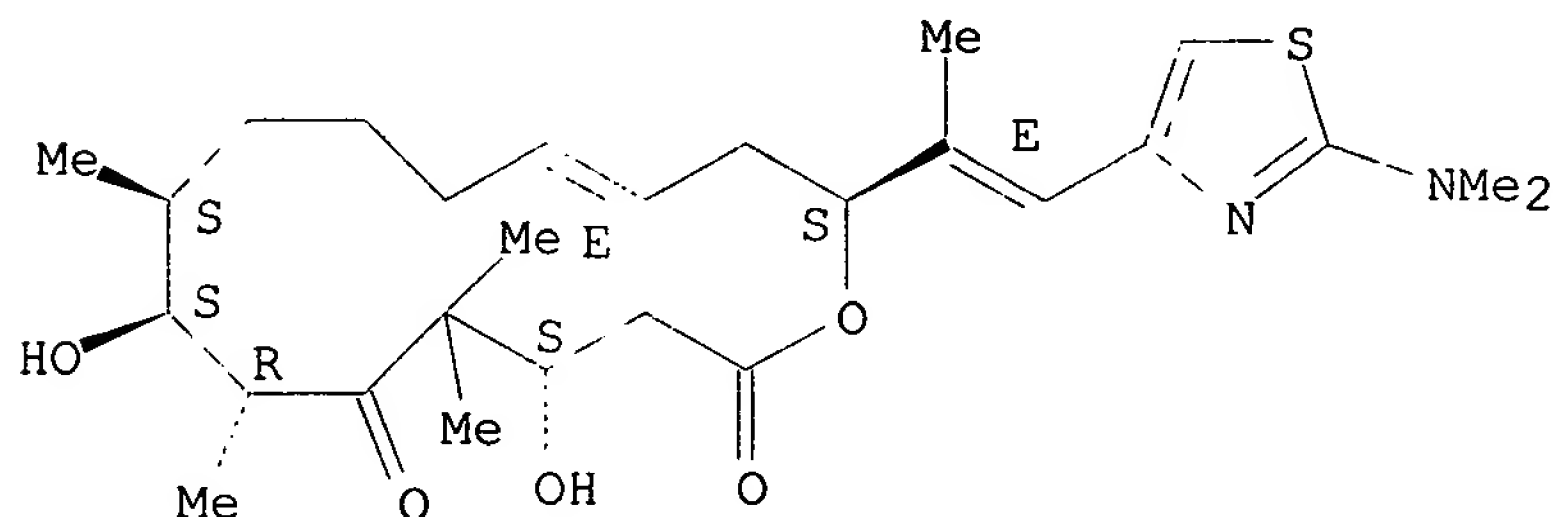
Absolute stereochemistry.
Double bond geometry as shown.



RN 209260-95-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 16-[(1E)-2-[2-(dimethylamino)-4-thiazolyl]-1-methylethenyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

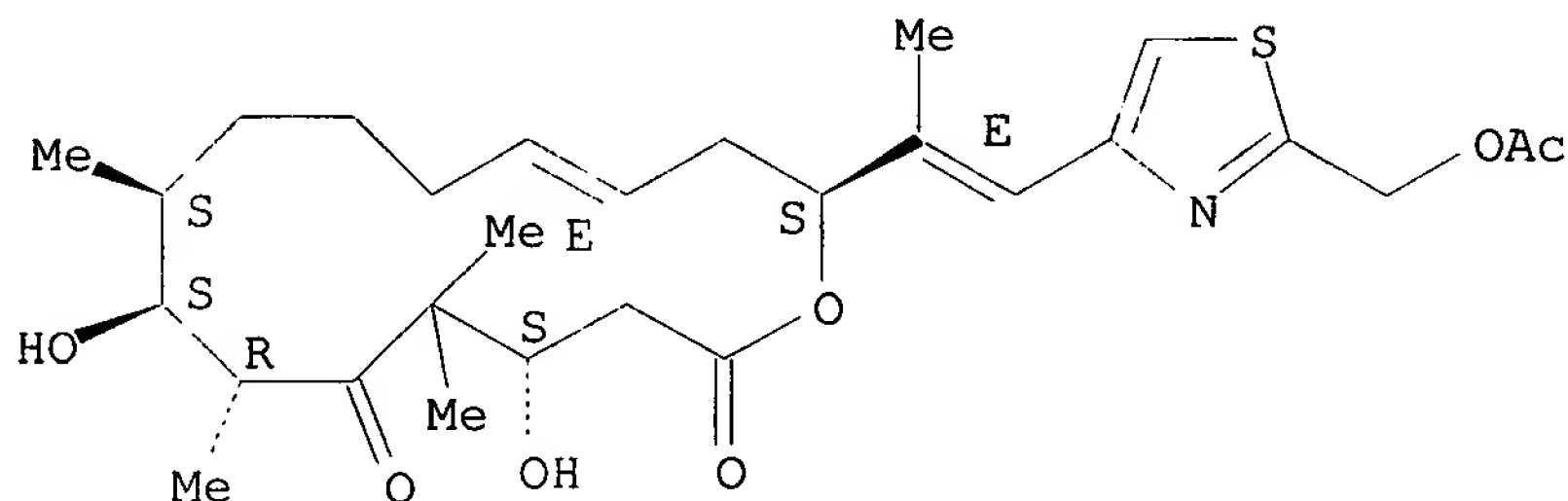
Absolute stereochemistry.
Double bond geometry as shown.



RN 209260-96-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 16-[(1E)-2-[2-[(acetyloxy)methyl]-4-thiazolyl]-1-methylethenyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

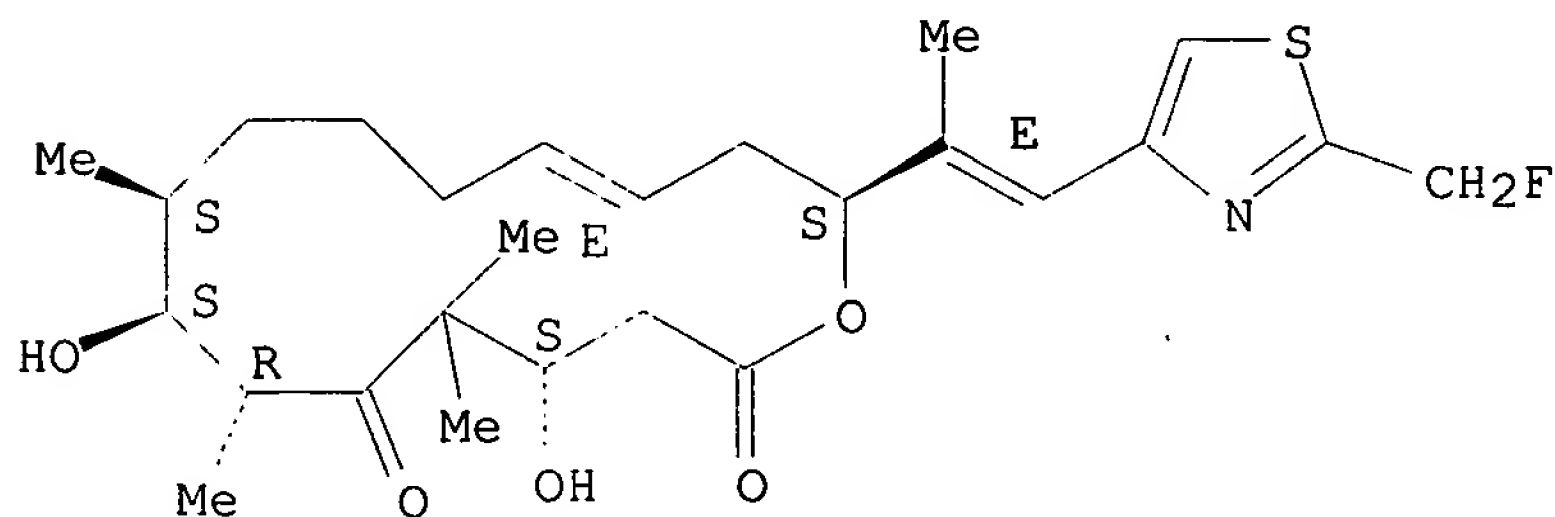
Absolute stereochemistry.
Double bond geometry as shown.



RN 209260-97-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 16-[(1E)-2-[2-(fluoromethyl)-4-thiazolyl]-1-methylethenyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT 198475-04-6P 201136-64-3P 201136-85-8P
201136-86-9P 201136-88-1P 201136-97-2P
209261-02-9P

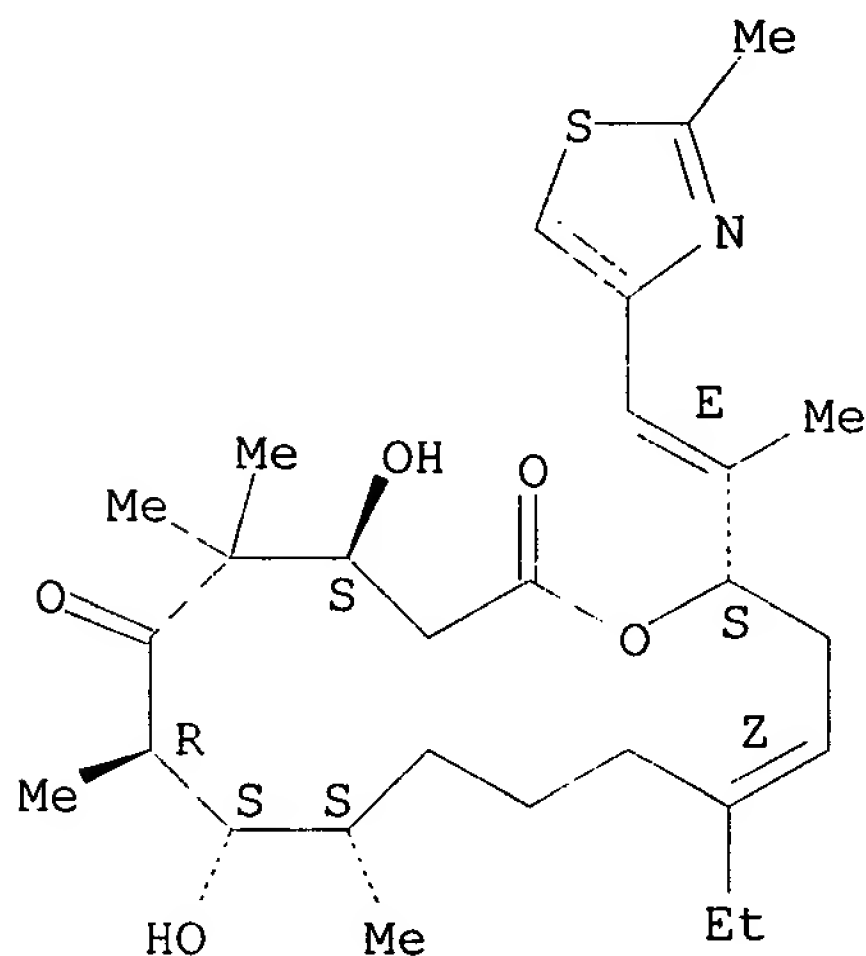
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prep. of epothilone analogs as anticancer agents)

RN 198475-04-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-ethyl-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

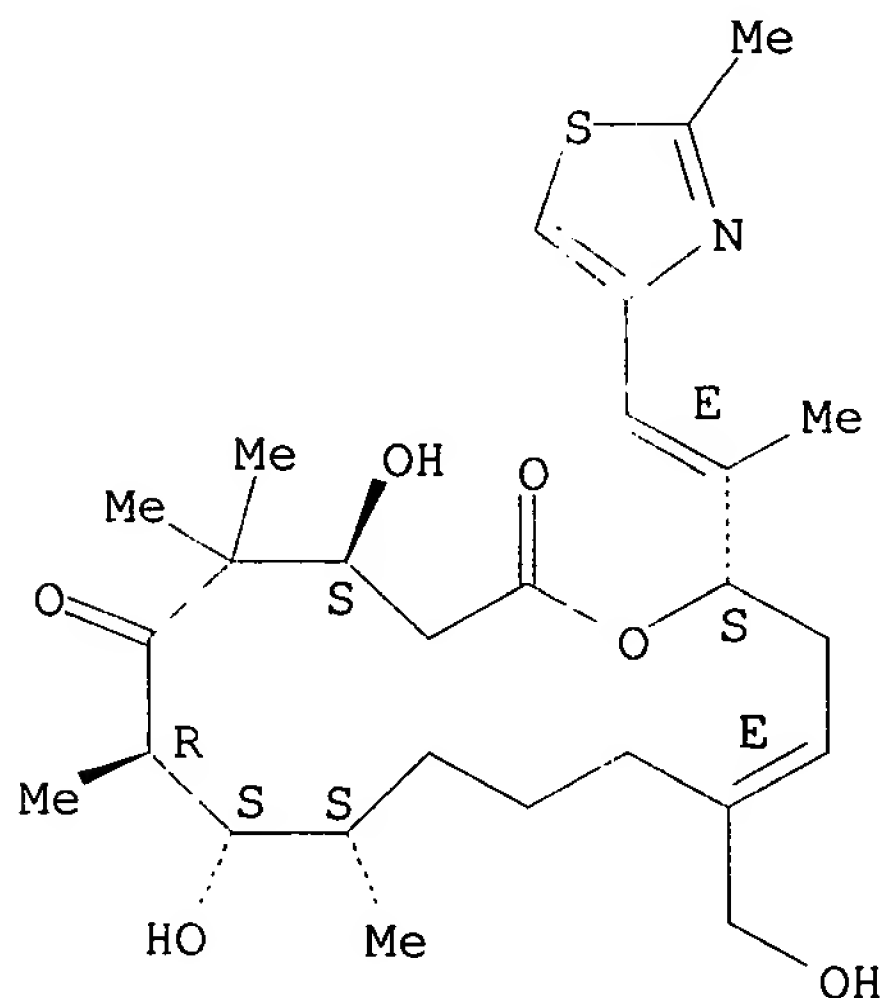


RN 201136-64-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-13-(hydroxymethyl)-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

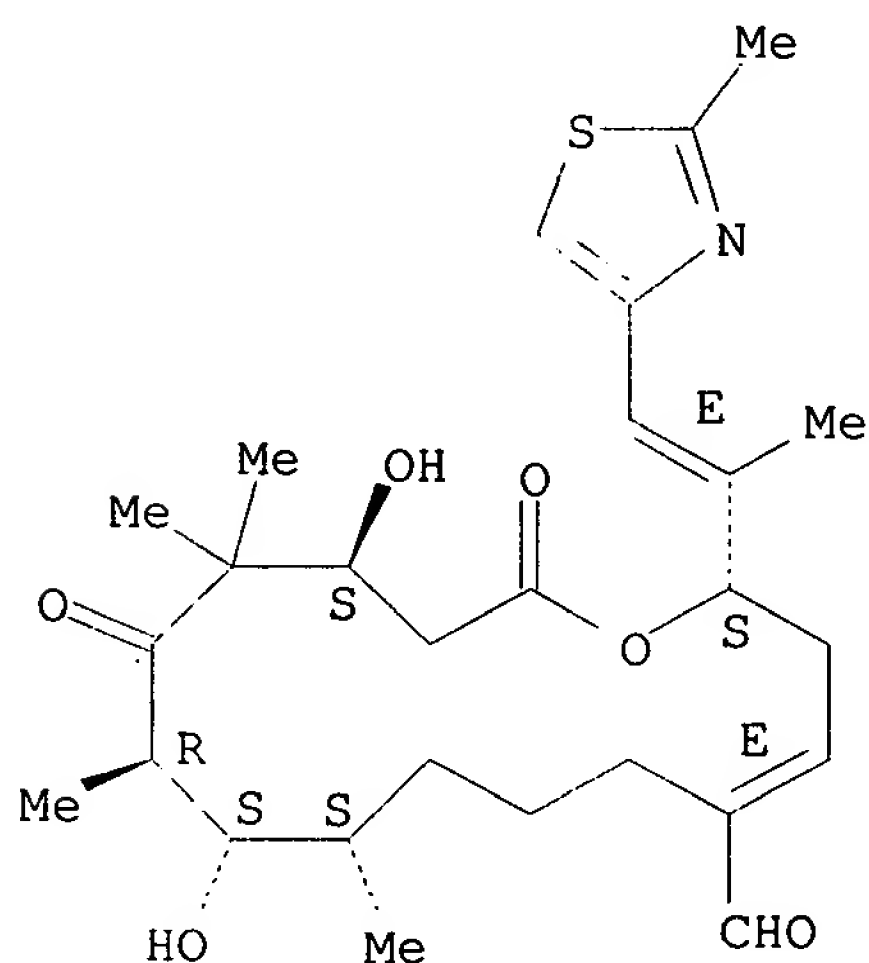
Double bond geometry as shown.



RN 201136-85-8 CAPLUS

CN Oxacyclohexadec-4-ene-5-carboxaldehyde, 10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12,16-dioxo-, (2S,4E,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

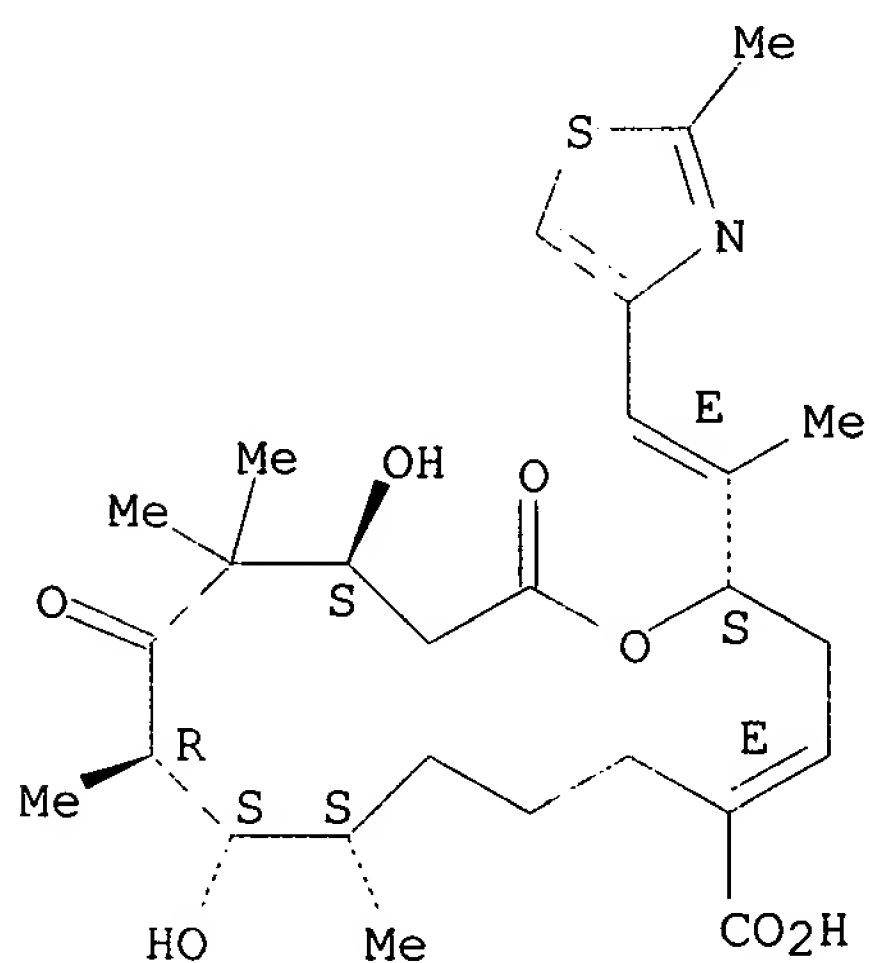
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-86-9 CAPLUS

CN Oxacyclohexadec-4-ene-5-carboxylic acid, 10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12,16-dioxo-, (2S,4E,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

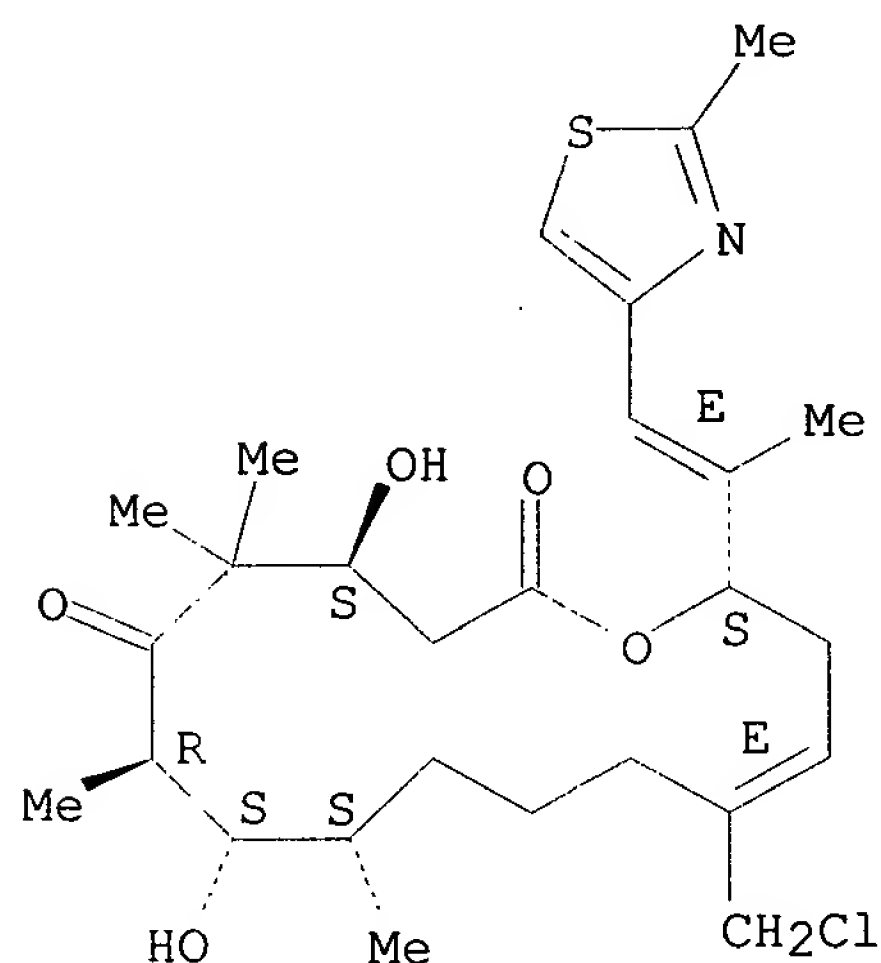


RN 201136-88-1 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-(chloromethyl)-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,

(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

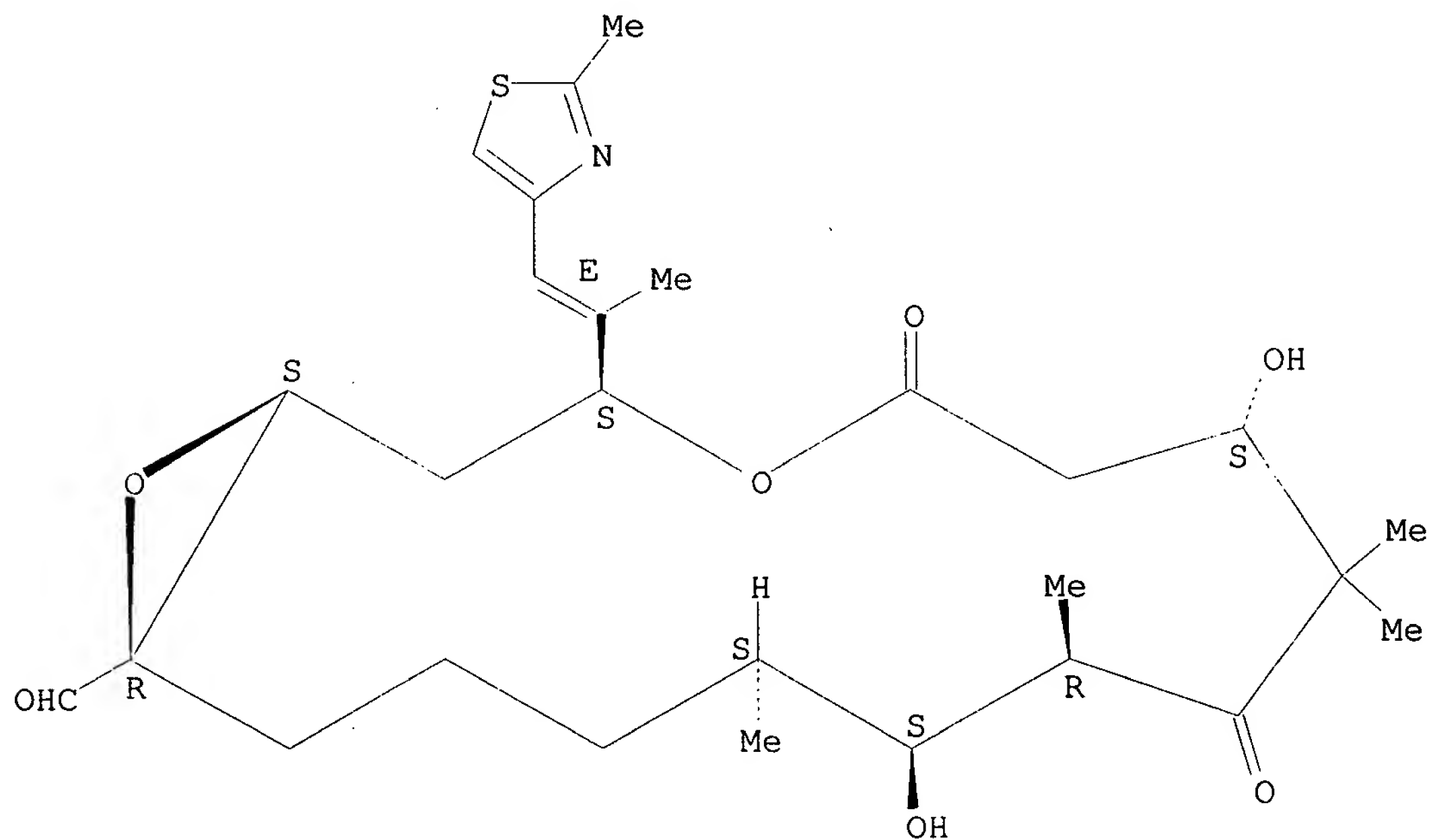
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-97-2 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-16-carboxaldehyde,
7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-5,9-dioxo-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 209261-02-9 CAPLUS .

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-[[[(4-methylphenyl)sulfonyl]oxy]methyl]-, (1S,3S,7S,10R,11S,12S,16S)- (9CI)

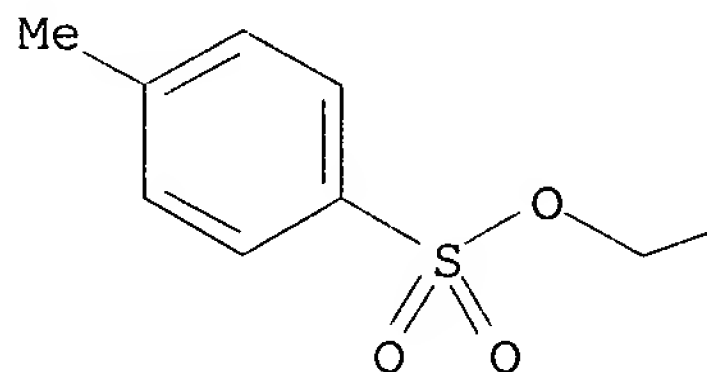
(CA

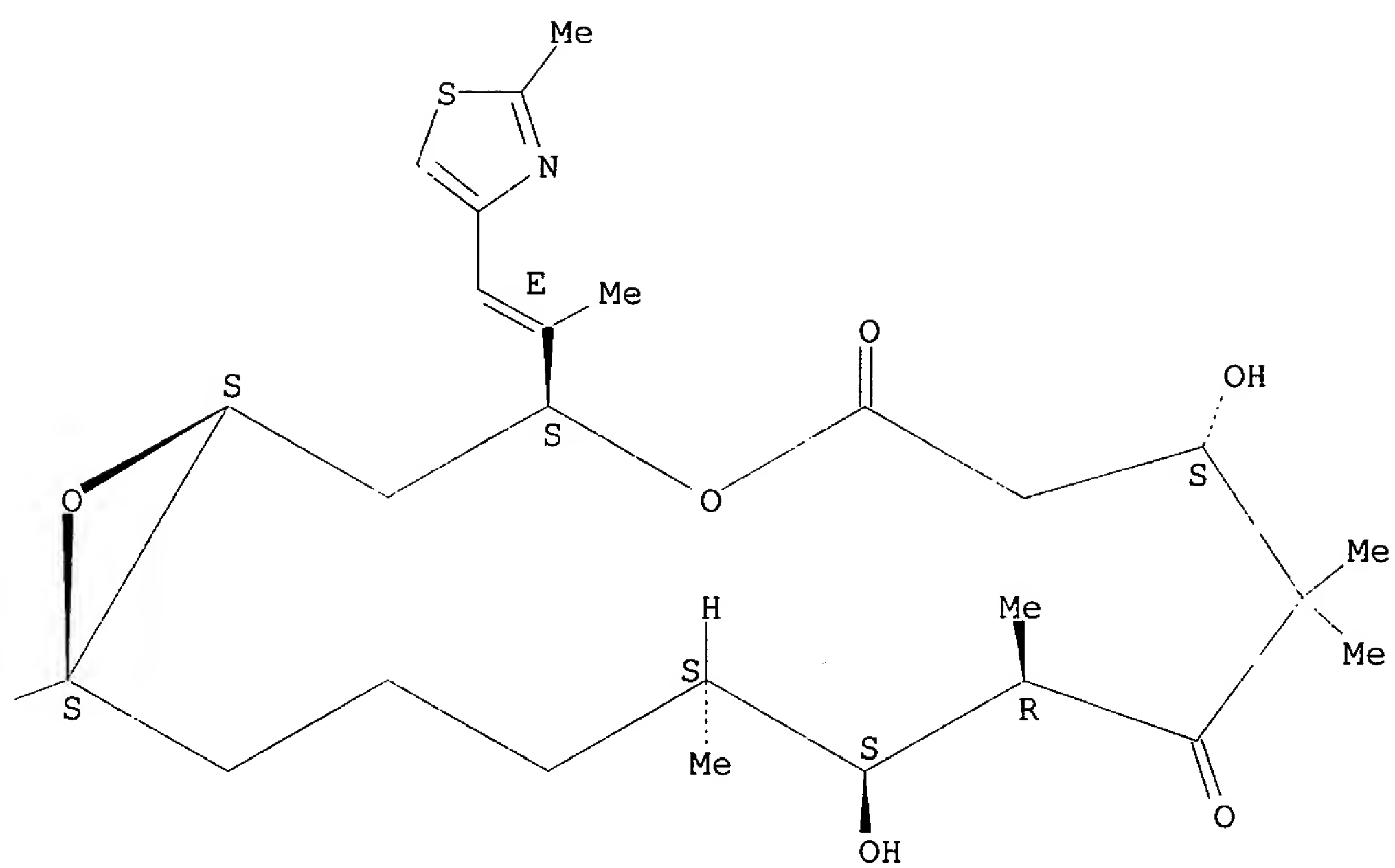
INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

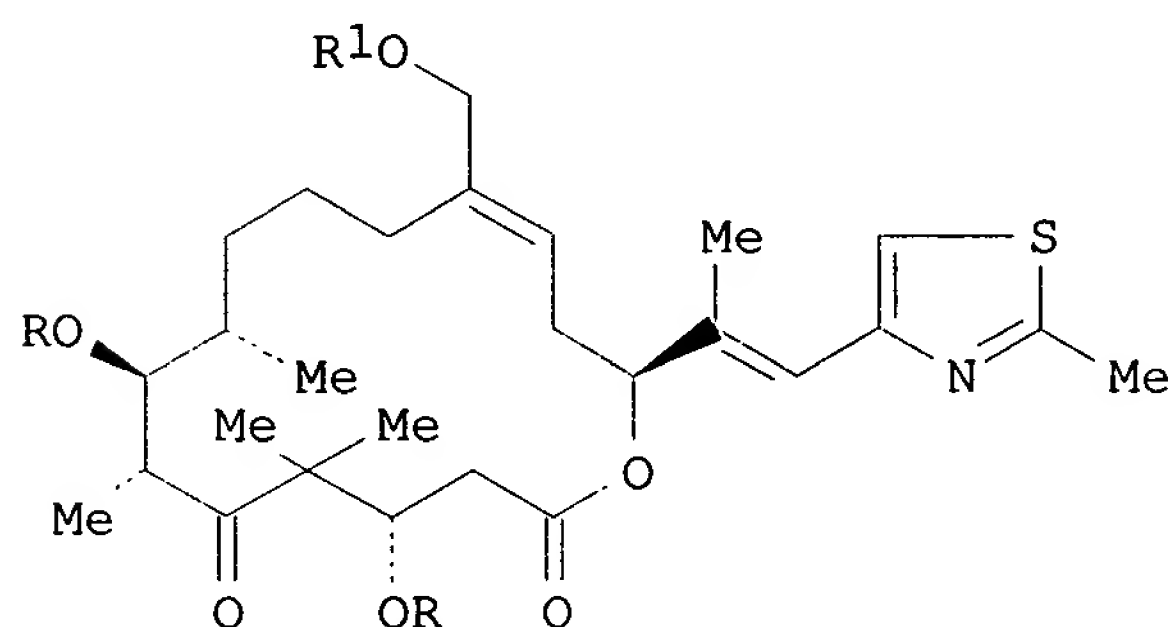
PAGE 1-A





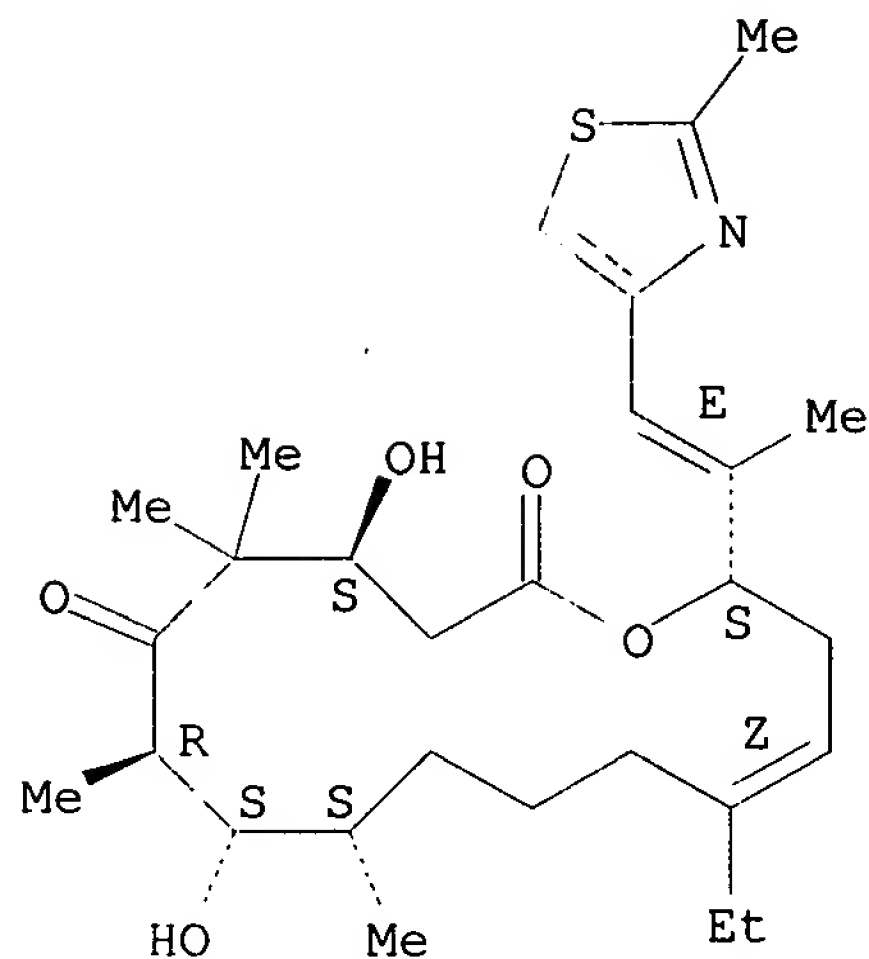
=> D BIB ABS HITSTR 12

L20 ANSWER 12 OF 28 CAPLUS COPYRIGHT 1999 ACS
 AN 1998:378435 CAPLUS
 DN 129:189151
 TI Total synthesis of 26-hydroxy-epothilone B and related analogs via a
 macrolactonization based strategy
 AU Nicolaou, K. C.; Finlay, M. Ray V.; Ninkovic, Sacha; Sarabia, Francisco
 CS Department of Chemistry and The Skaggs Institute for Chemical Biology,
 The Scripps Research Institute, La Jolla, CA, 92037, USA
 SO Tetrahedron (1998), 54(25), 7127-7166
 CODEN: TETRAB; ISSN: 0040-4020
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 OS CASREACT 129:189151
 GI



AB The chem. synthesis of a series of 26-substituted epothilones B was
 described. Fully protected 26-hydroxydesoxy-epothilone B I (R =
 SiMe₂CMe₃, R₁ = CPh₃), prepd. via a macrolactonization strategy, served
 as
 a common precursor to the designed epothilones described. The
 synthesized
 compds. were members of a large epothilone library of a no. of antitumor
 agents.
 IT 198475-04-6P 201136-64-3P, (-)-26-
 Hydroxydesoxyepothilone B 201136-80-3P, 26-Hydroxyepothilone B
 201136-85-8P 201136-86-9P 201136-97-2P
 201136-98-3P 209261-02-9P 211801-80-8P
 211801-81-9P 211801-82-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (total synthesis of 26-hydroxy-epothilone B and related analogs via a
 macrolactonization based strategy)
 RN 198475-04-6 CAPLUS
 CN Oxacyclohexadec-13-ene-2,6-dione, 13-ethyl-4,8-dihydroxy-5,5,7,9-
 tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
 (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

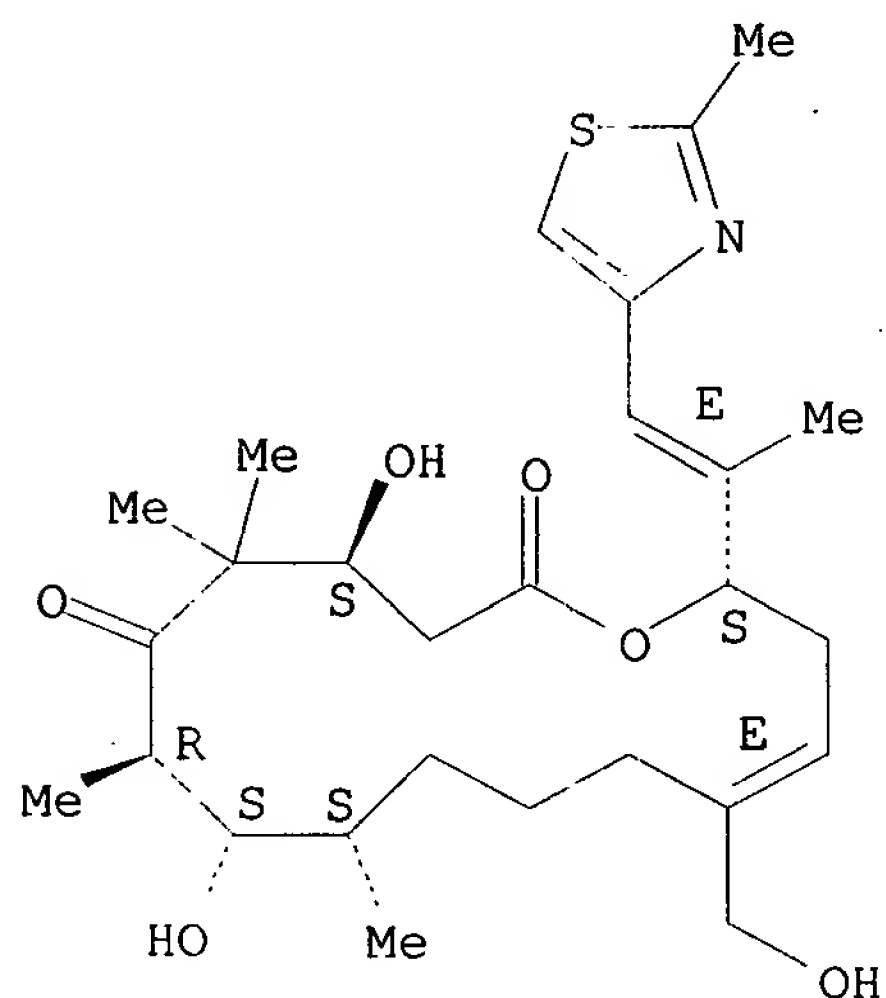
Absolute stereochemistry. Rotation (-).
 Double bond geometry as shown.



RN 201136-64-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-13-(hydroxymethyl)-5,5,7,9-
tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

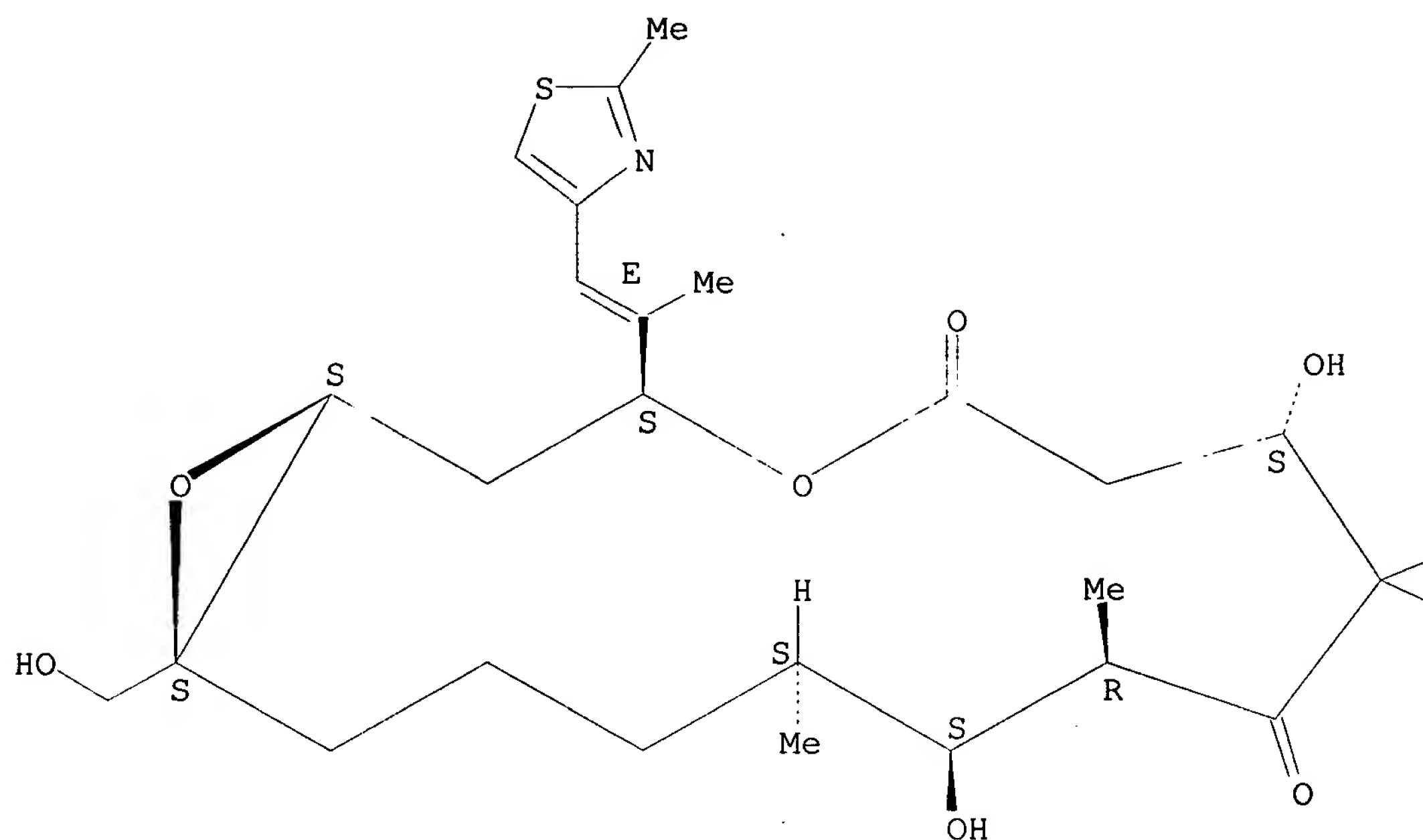


RN 201136-80-3 CAPLUS

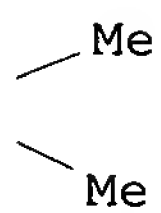
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-16-
(hydroxymethyl)-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

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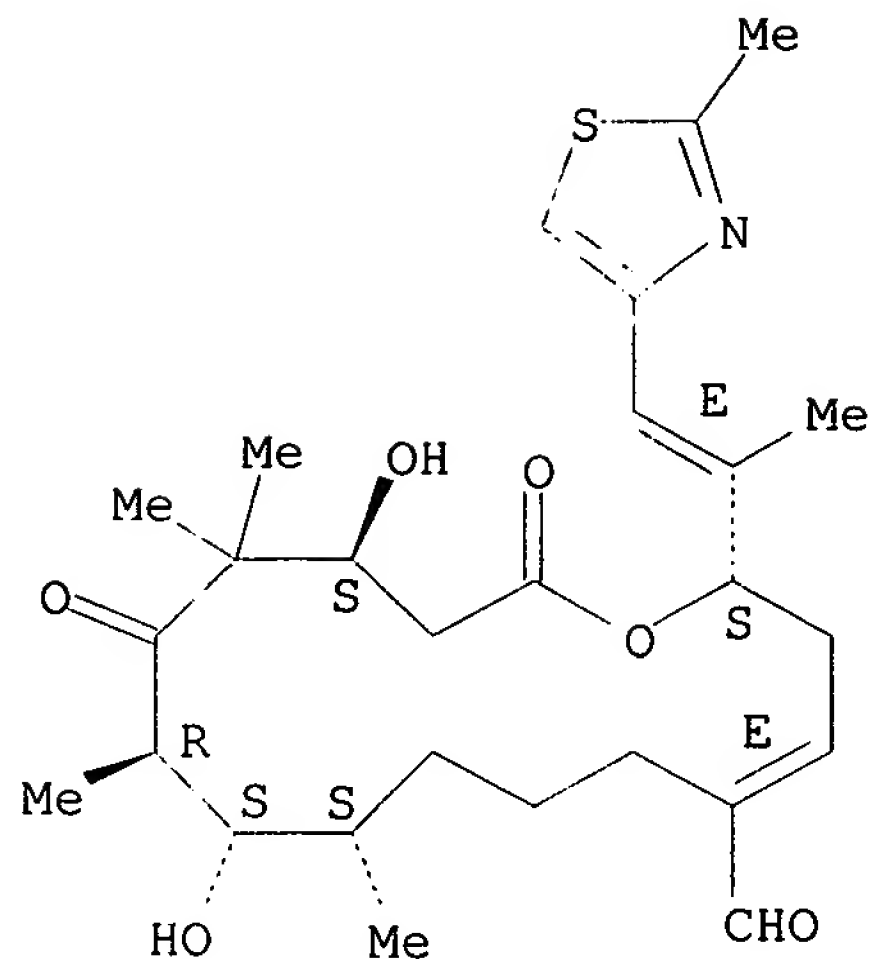
PAGE 1-B



RN 201136-85-8 CAPLUS

CN Oxacyclohexadec-4-ene-5-carboxaldehyde, 10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12,16-dioxo-; (2S,4E,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

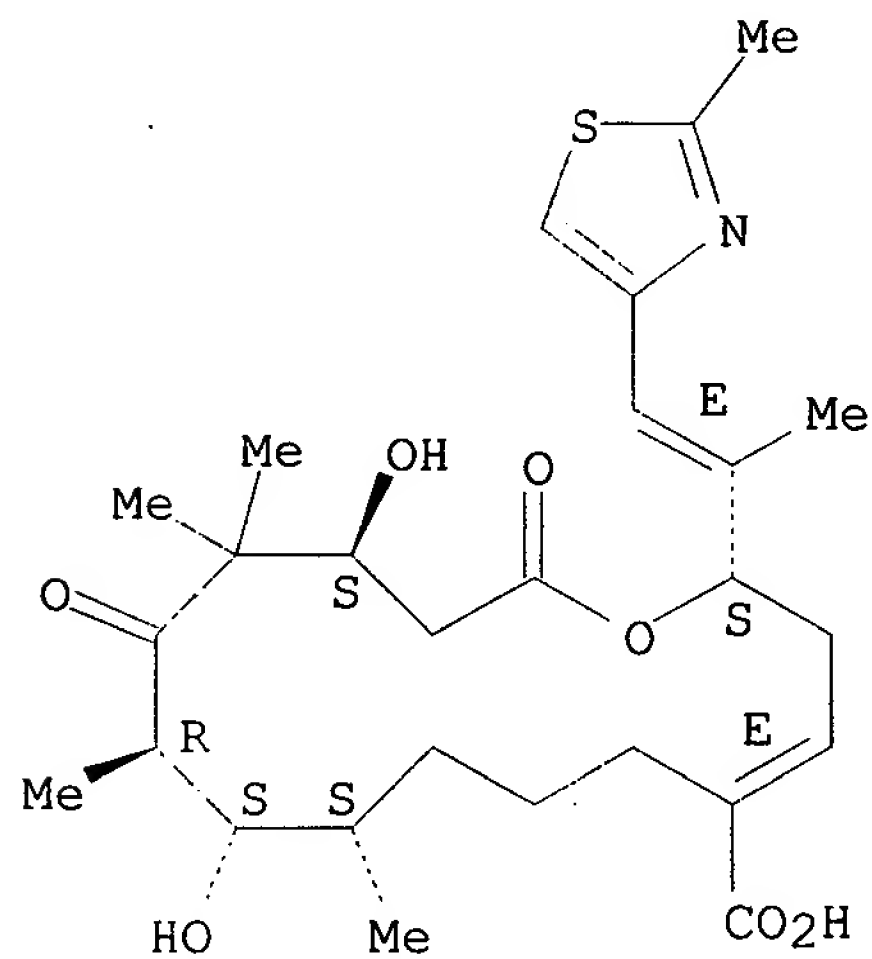
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-86-9 CAPLUS

CN Oxacyclohexadec-4-ene-5-carboxylic acid, 10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12,16-dioxo-, (2S,4E,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

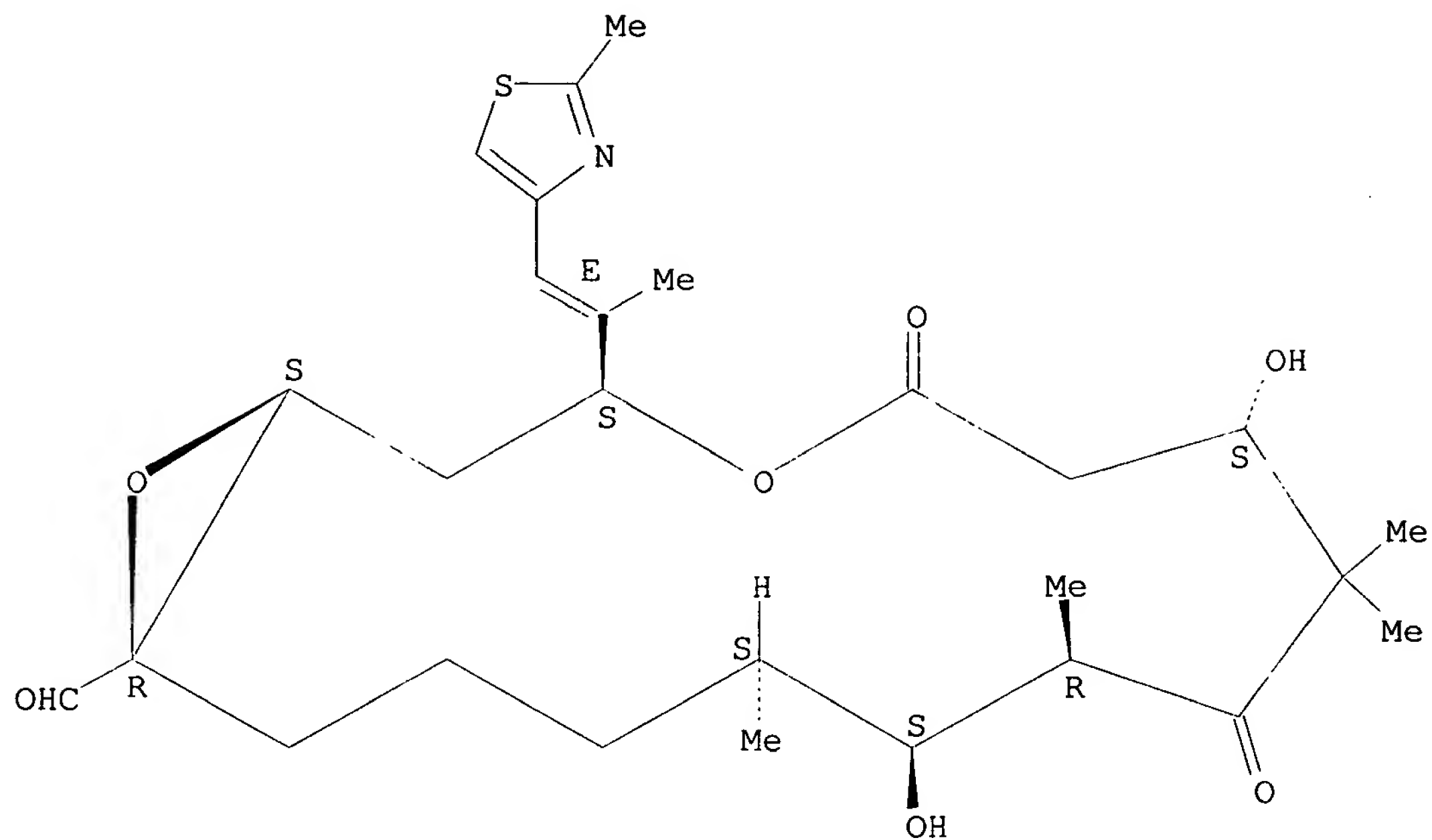
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-97-2 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-16-carboxaldehyde, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-5,9-dioxo-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

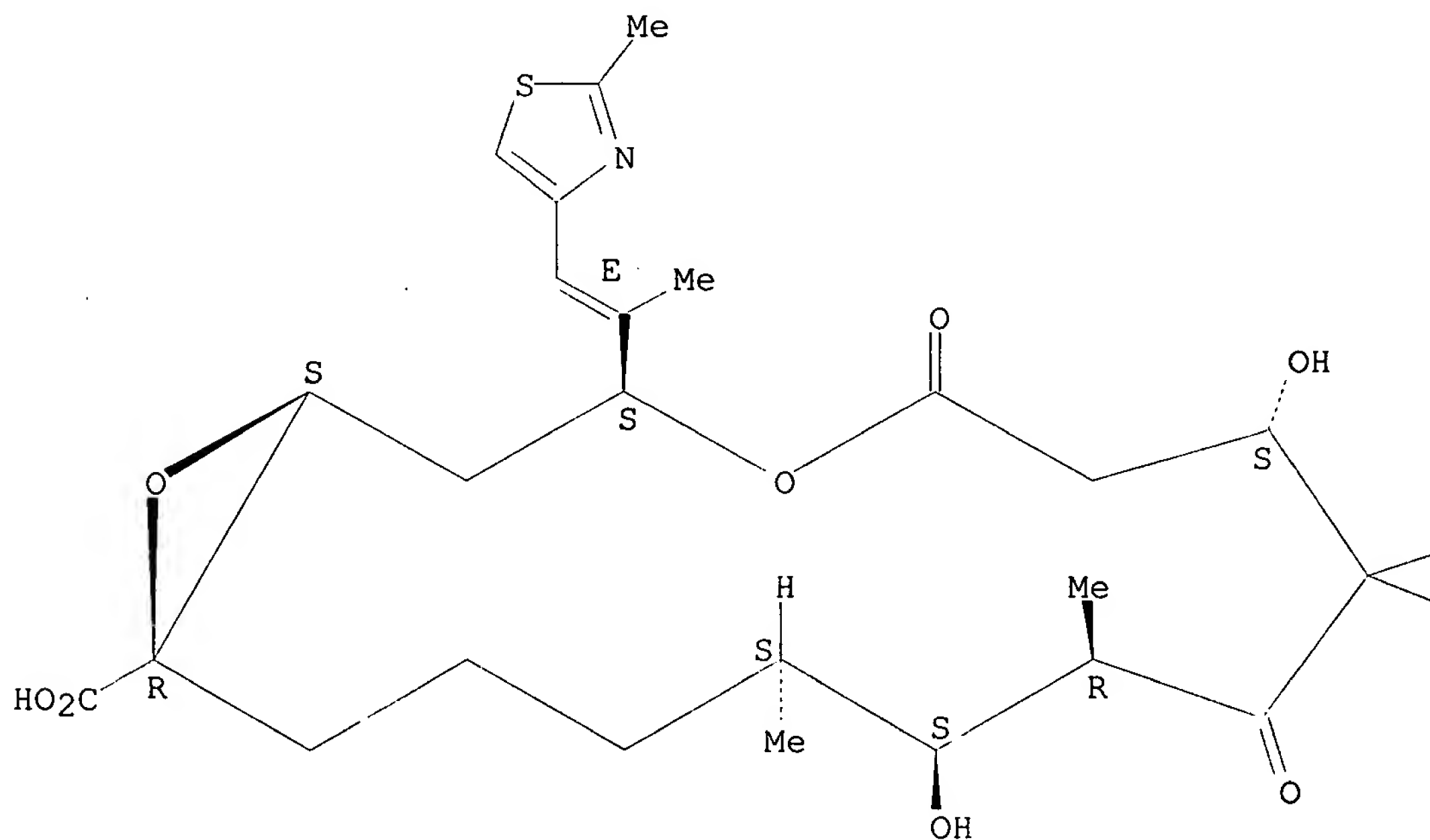


RN 201136-98-3 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-16-carboxylic acid,
7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-5,9-dioxo-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

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PAGE 1-B

Me

Me

RN 209261-02-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-[[[(4-methylphenyl)sulfonyl]oxy]methyl]-, (1S,3S,7S,10R,11S,12S,16S)- (9CI)

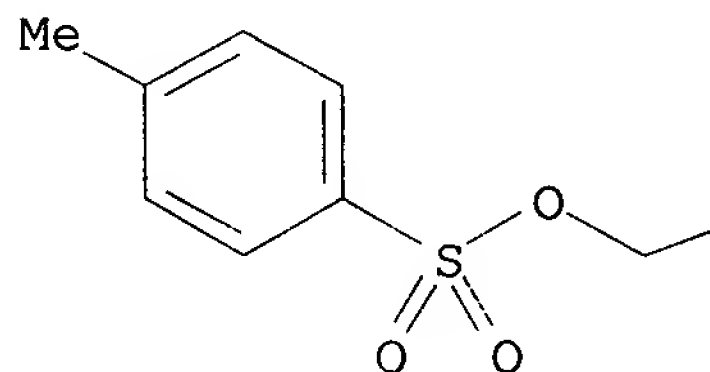
(CA

INDEX NAME)

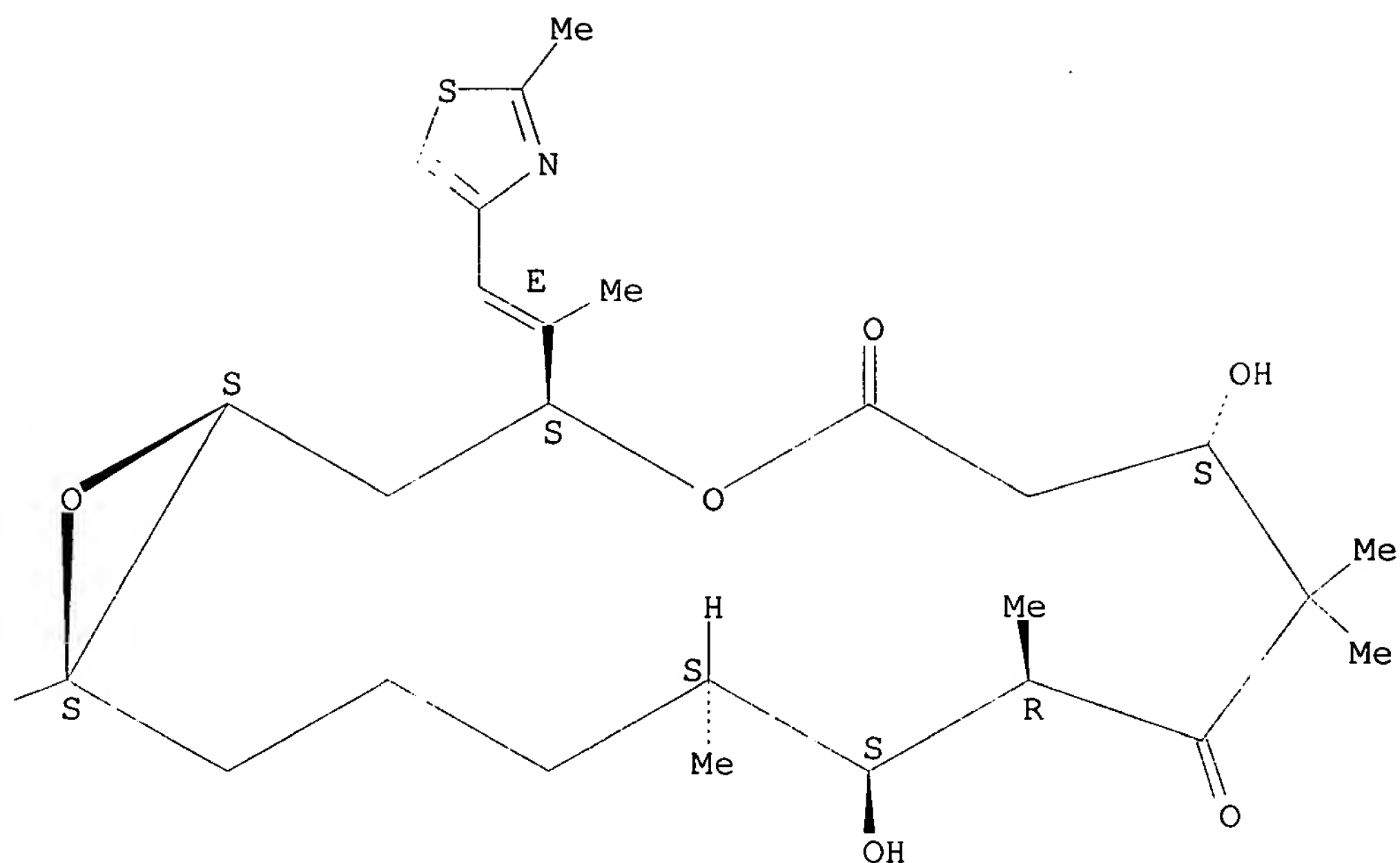
Absolute stereochemistry.

Double bond geometry as shown.

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PAGE 1-B

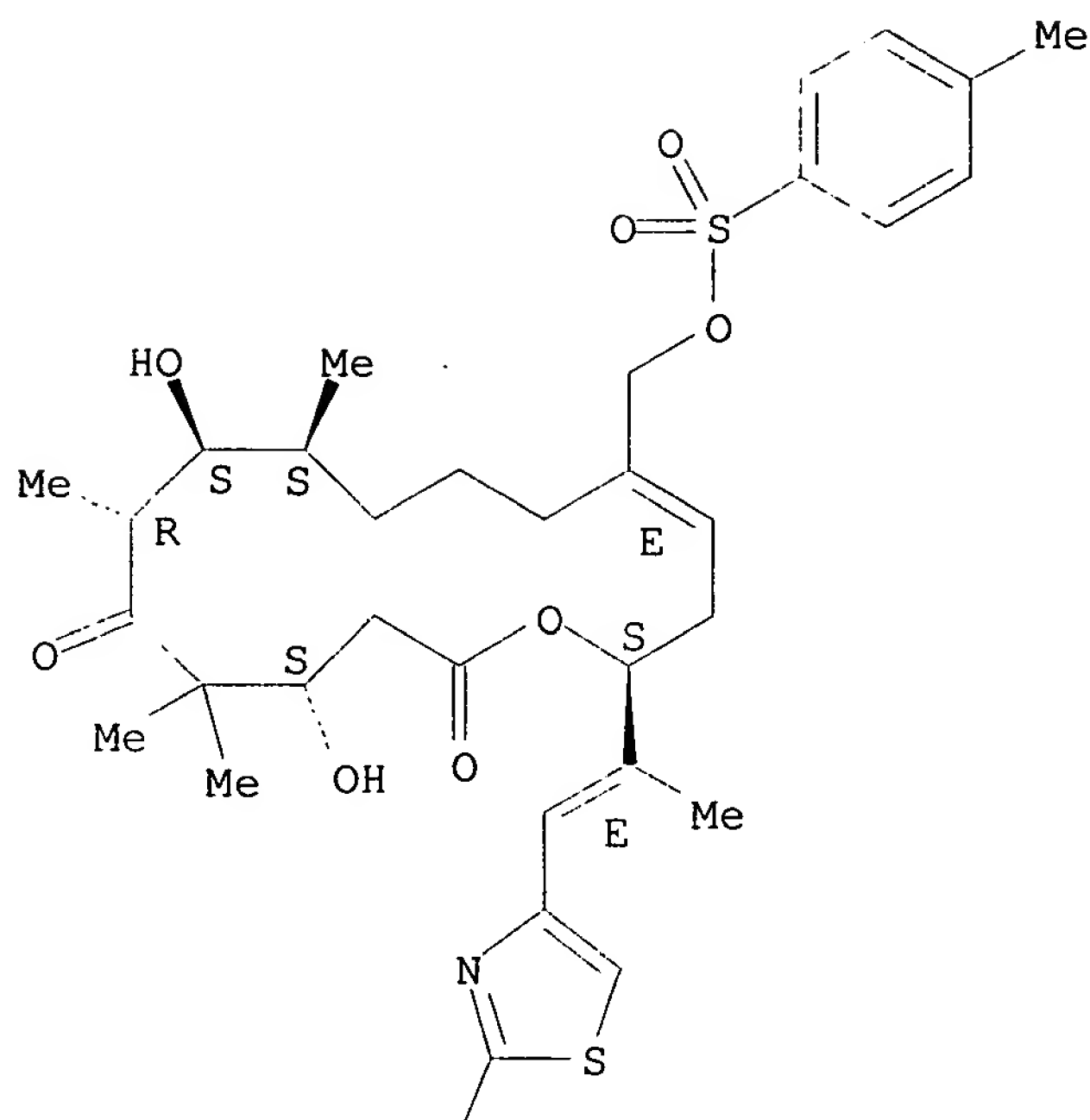


RN 211801-80-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-[[[(4-
methylphenyl)sulfonyl]oxy]methyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

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PAGE 2-A

/

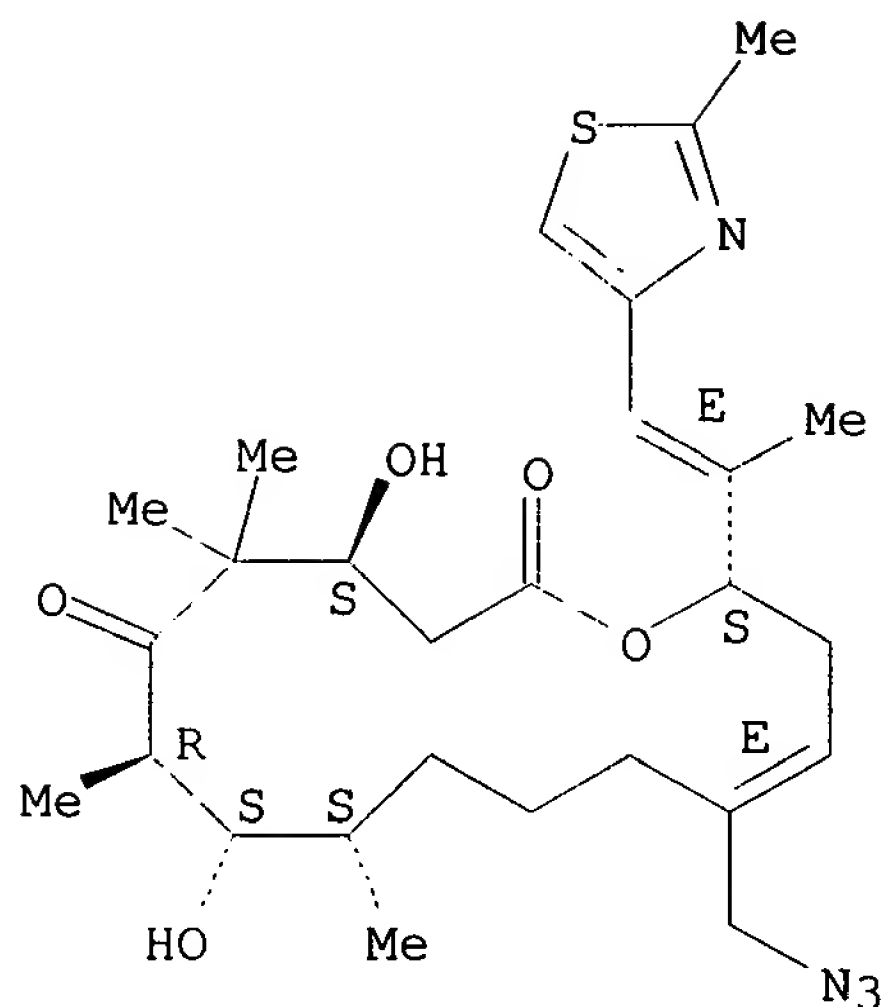
Me

RN 211801-81-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-(azidomethyl)-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

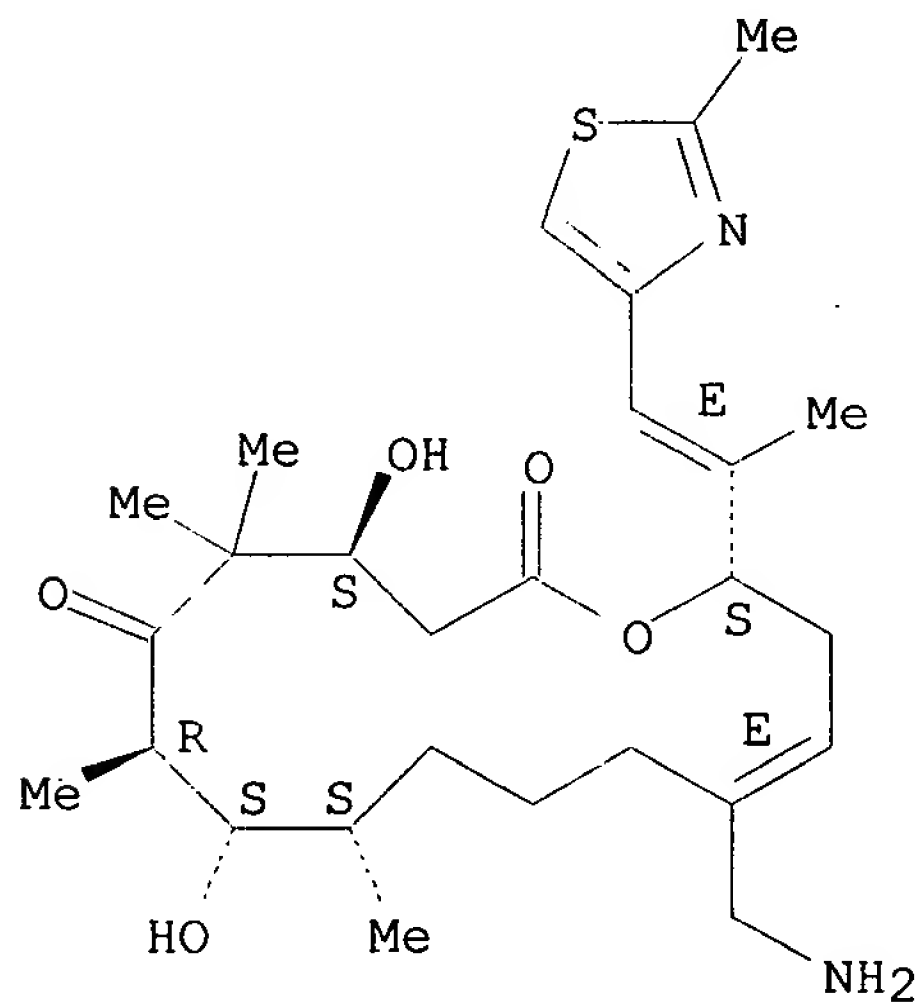
Double bond geometry as shown.



RN 211801-82-0 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-(aminomethyl)-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



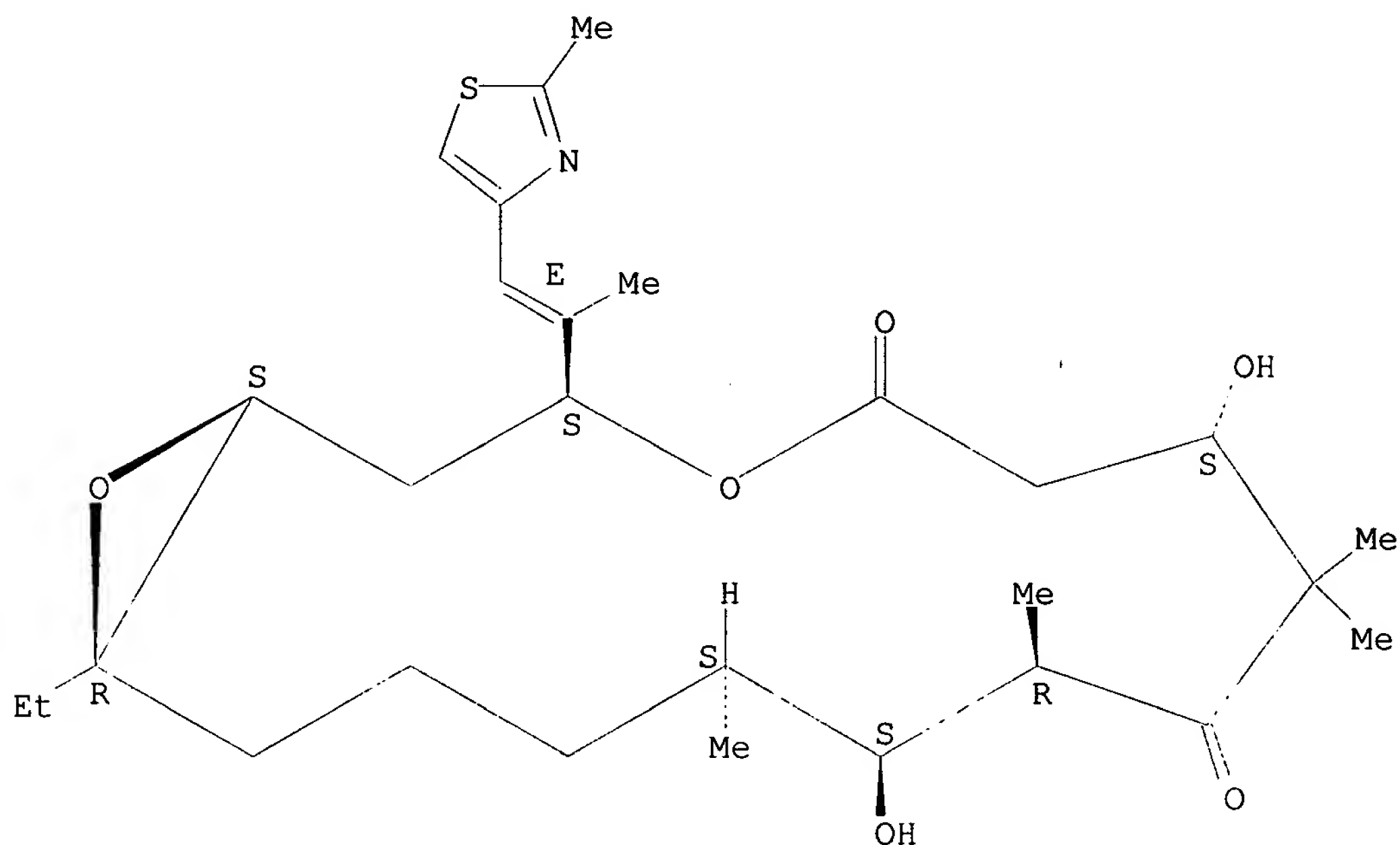
IT 198475-08-0P 201136-81-4P 201136-82-5P
201136-83-6P 201136-84-7P 201136-87-0P
201136-88-1P 201136-89-2P 201136-90-5P
201136-91-6P 201136-92-7P 201136-93-8P
201136-94-9P 201136-95-0P 201136-96-1P
201136-99-4P 201137-00-0P 201137-02-2P
201137-03-3P 201137-04-4P 211801-70-6P
211801-71-7P 211801-84-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(total synthesis of 26-hydroxy-epothilone B and related analogs via a

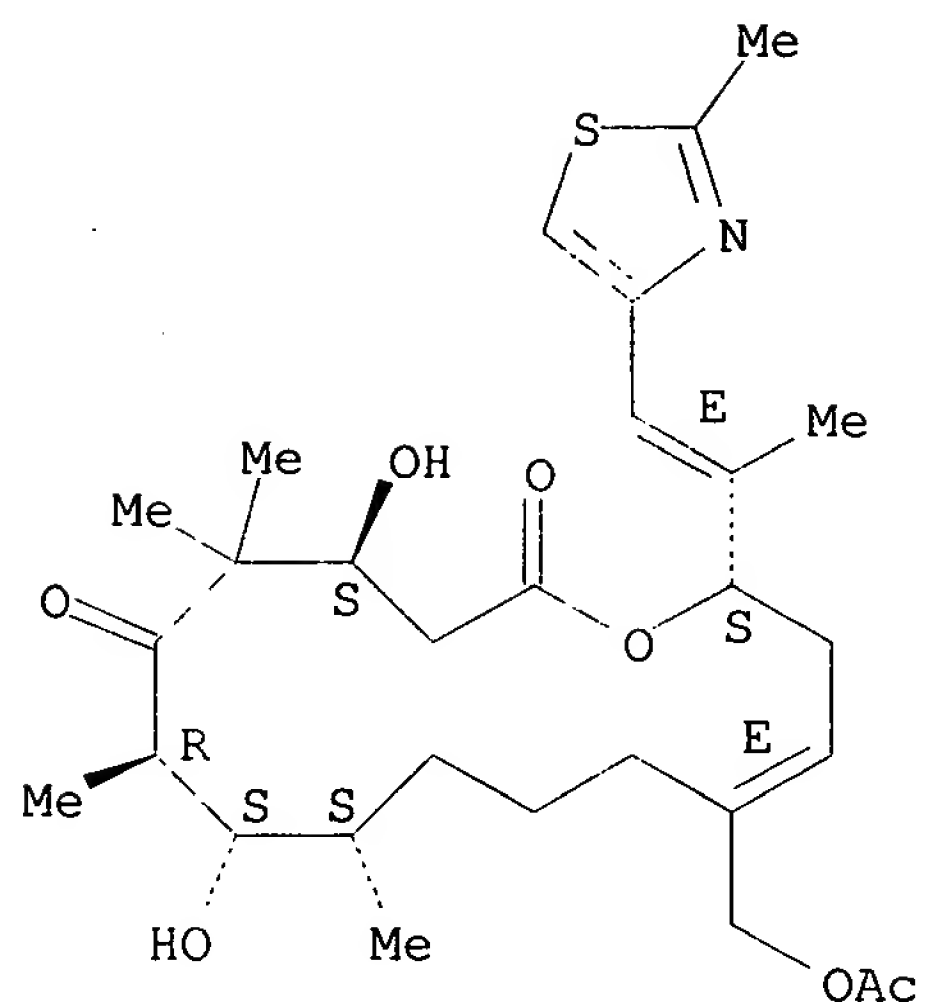
macrolactonization based strategy)
RN 198475-08-0 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-ethyl-7,11-dihydroxy-
8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-81-4 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 13-[(acetyloxy)methyl]-4,8-dihydroxy-
5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-82-5 CAPLUS

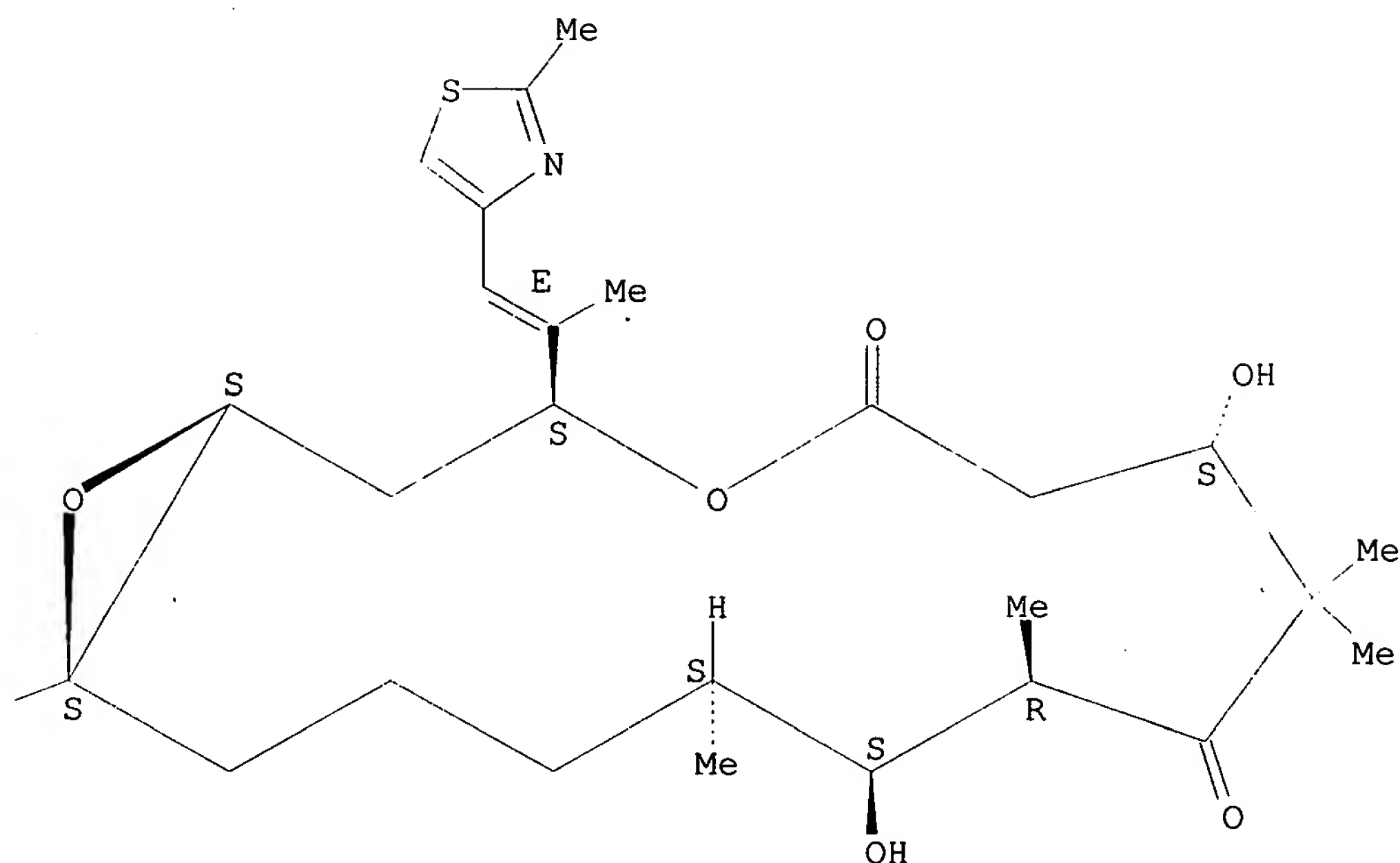
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-[(acetyloxy)methyl]-
7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

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CC(=O)OCC

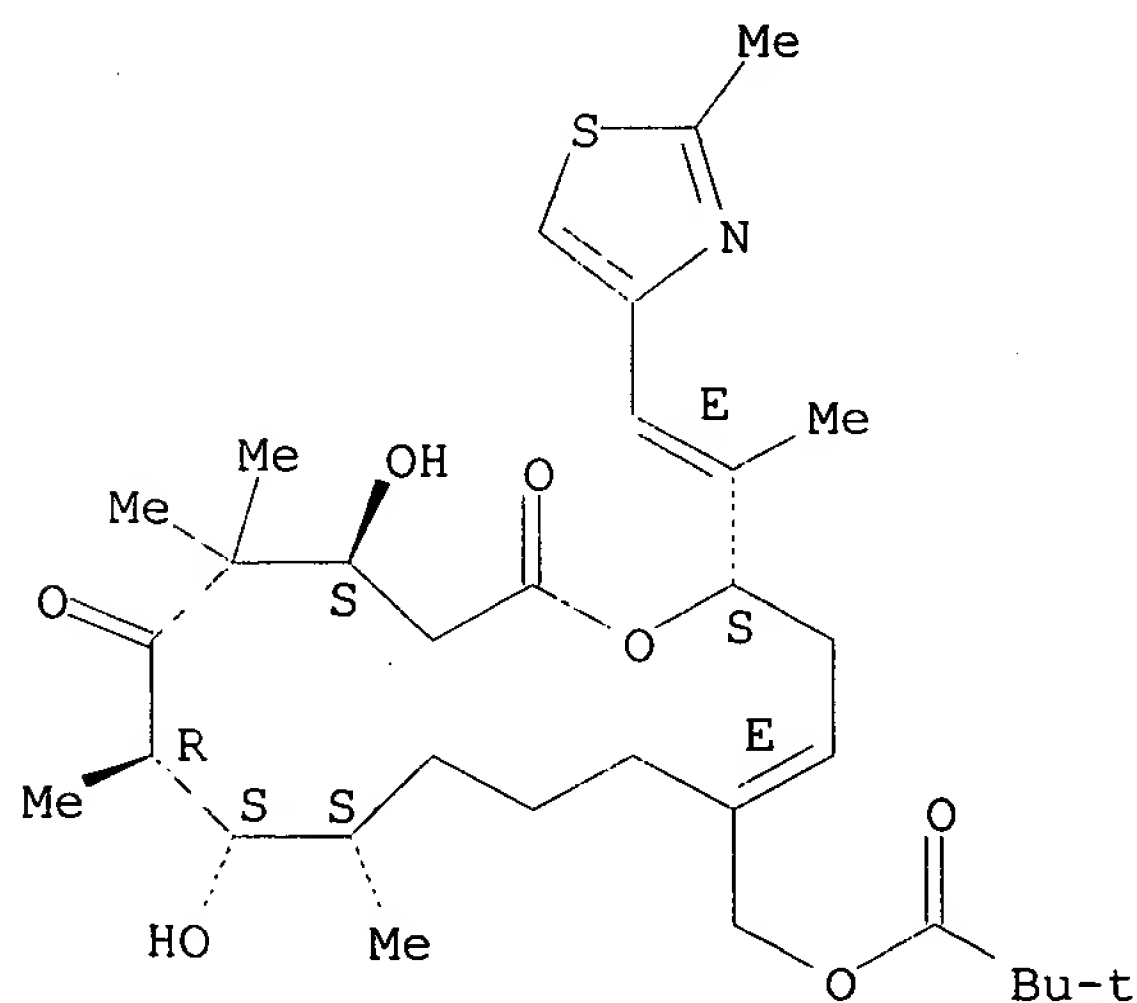
PAGE 1-B



RN 201136-83-6 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, [(2S,4E,9S,10S,11R,14S)-10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12,16-dioxooxacyclohexadec-4-en-5-yl]methyl ester (9CI) (CA INDEX NAME)

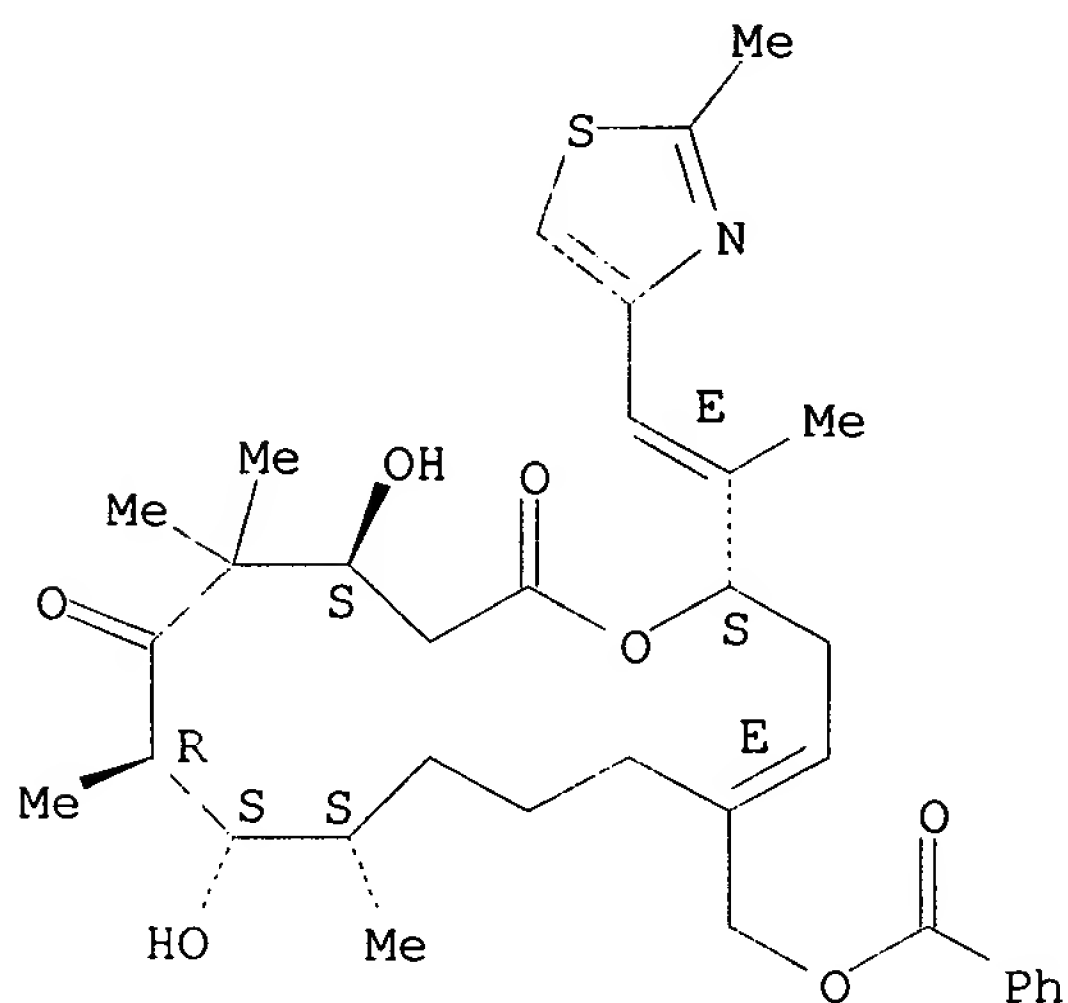
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-84-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-[(benzoyloxy)methyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

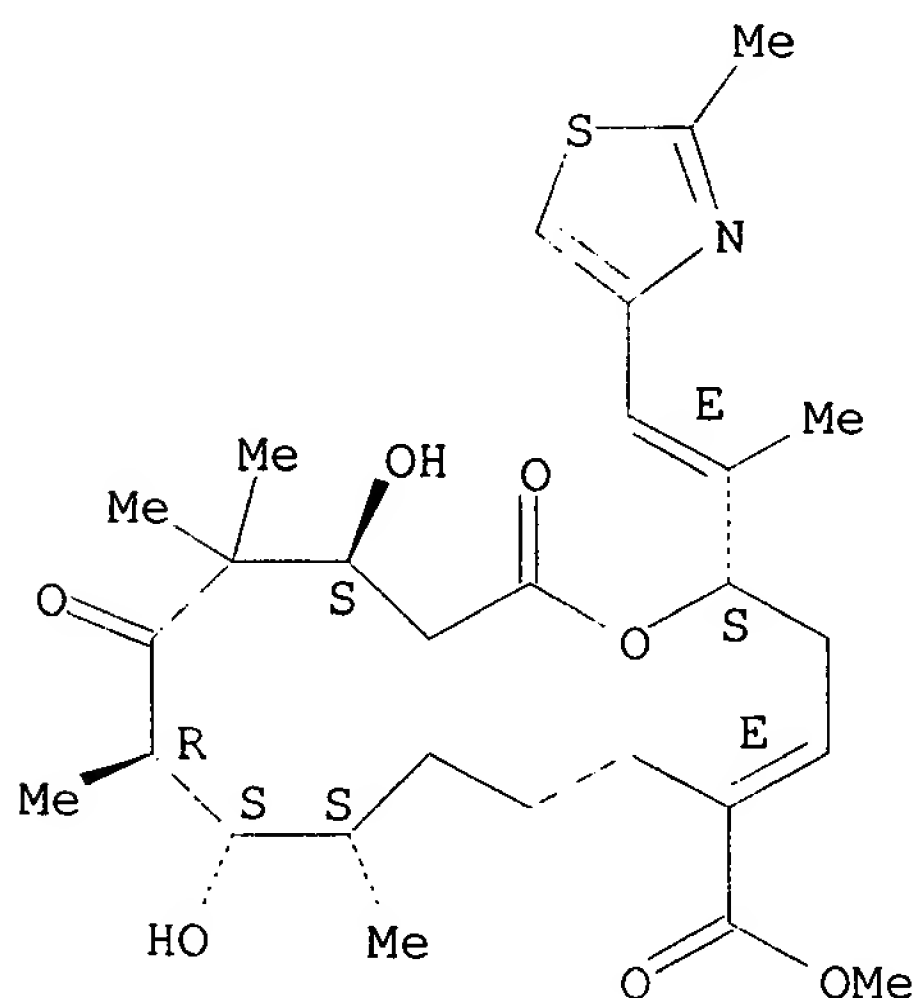


RN 201136-87-0 CAPLUS

CN Oxacyclohexadec-4-ene-5-carboxylic acid, 10,14-dihydroxy-9,11,13,13-

tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12,16-dioxo-
, methyl ester, (2S,4E,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



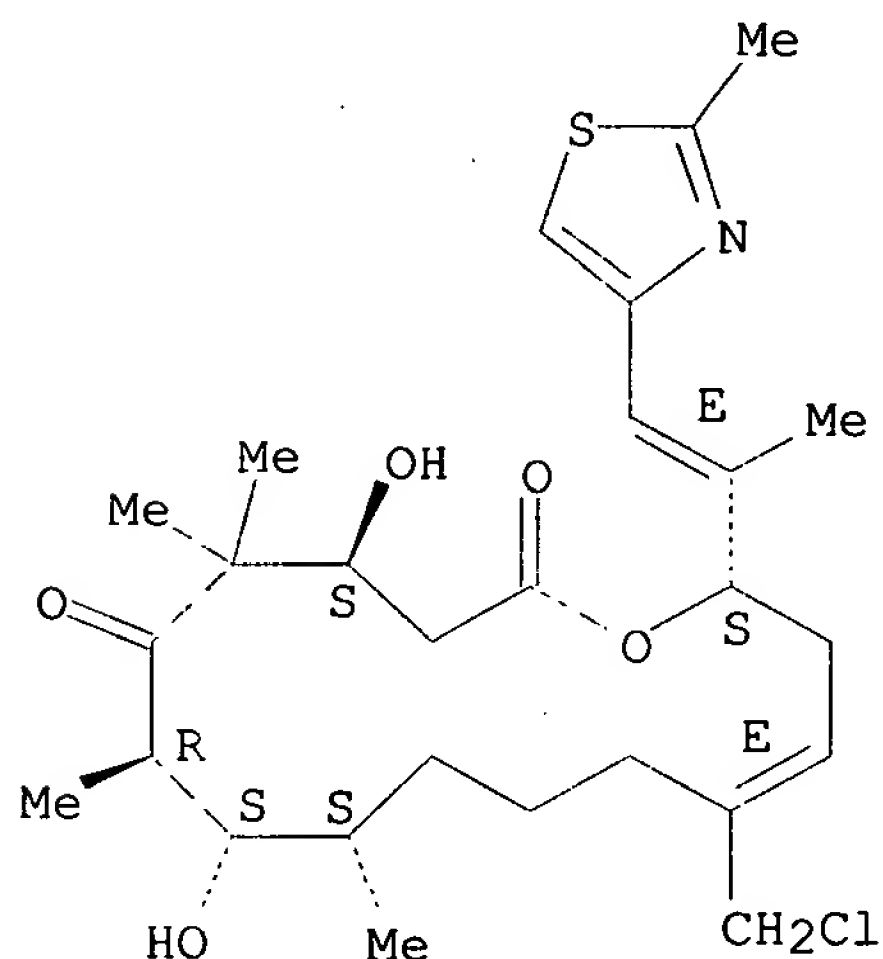
RN 201136-88-1 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,

13-(chloromethyl)-4,8-dihydroxy-5,5,7,9-

tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

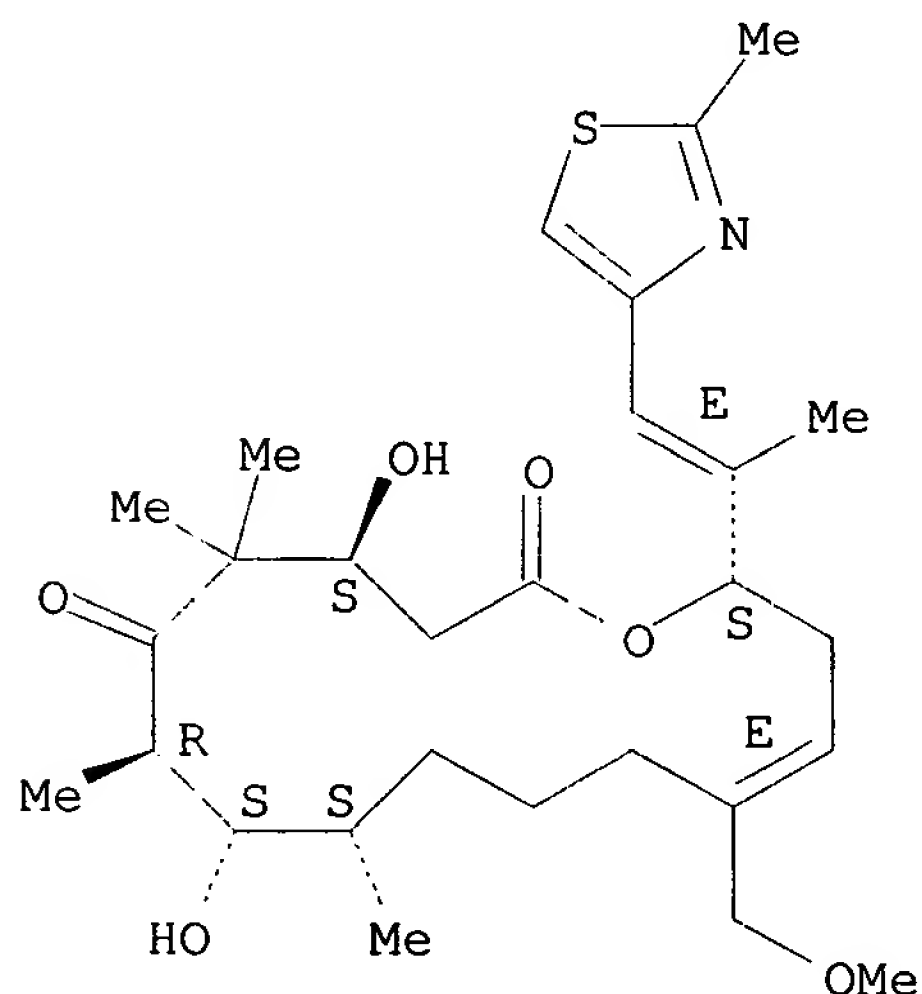
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-89-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-13-(methoxymethyl)-5,5,7,9-
tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

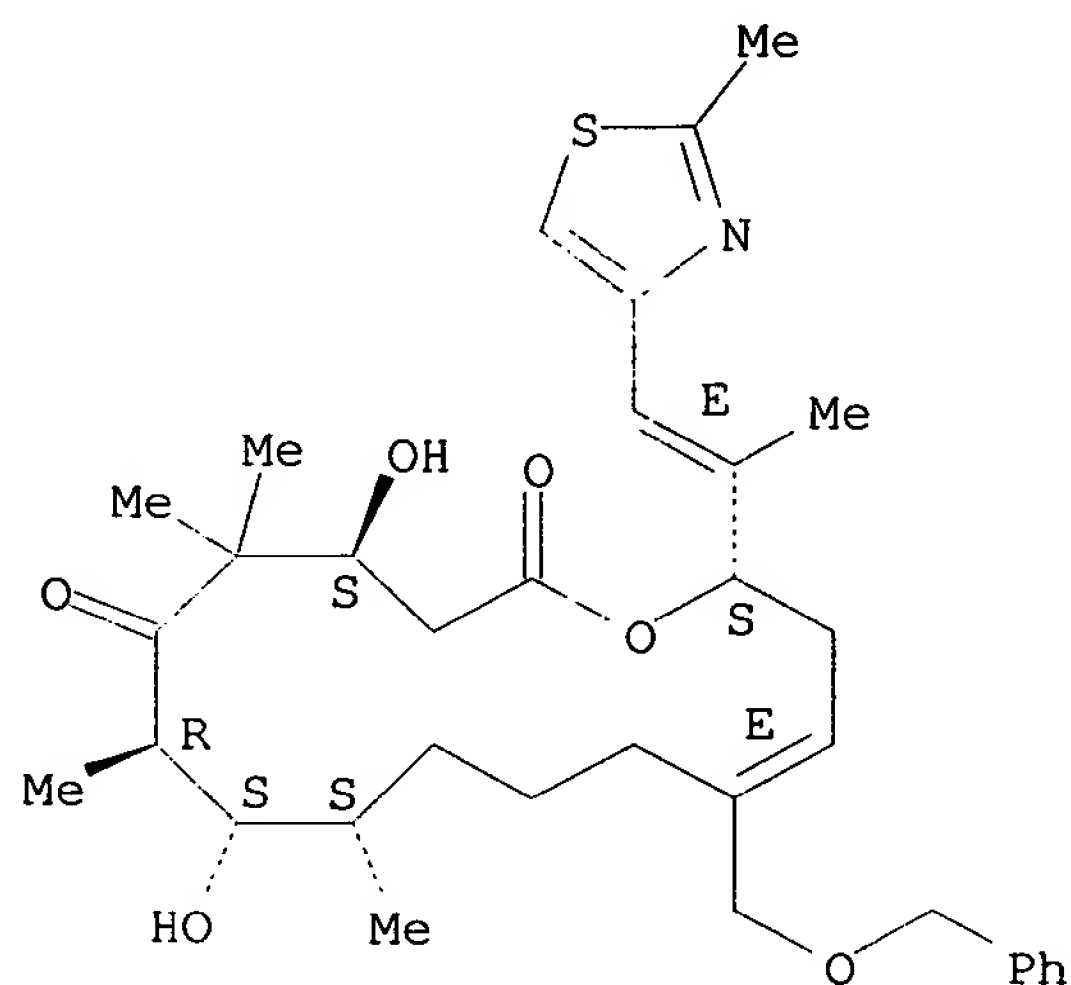
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-90-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-[(phenylmethoxy)methyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

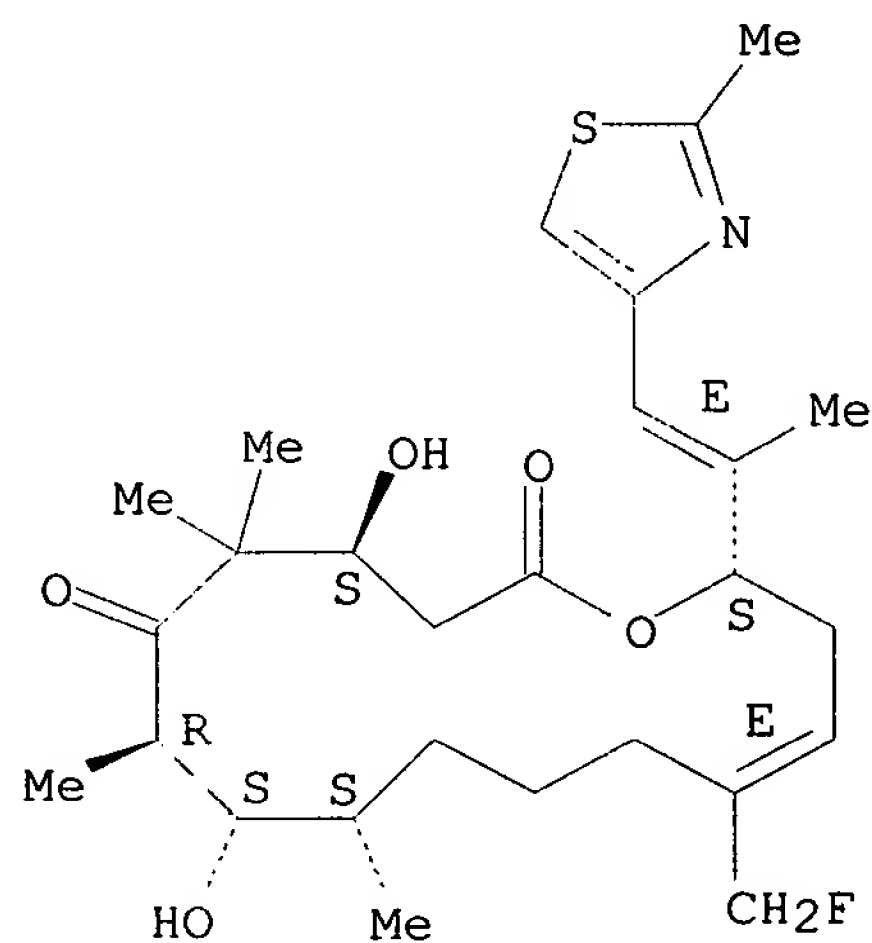
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-91-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
13-(fluoromethyl)-4,8-dihydroxy-5,5,7,9-
tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

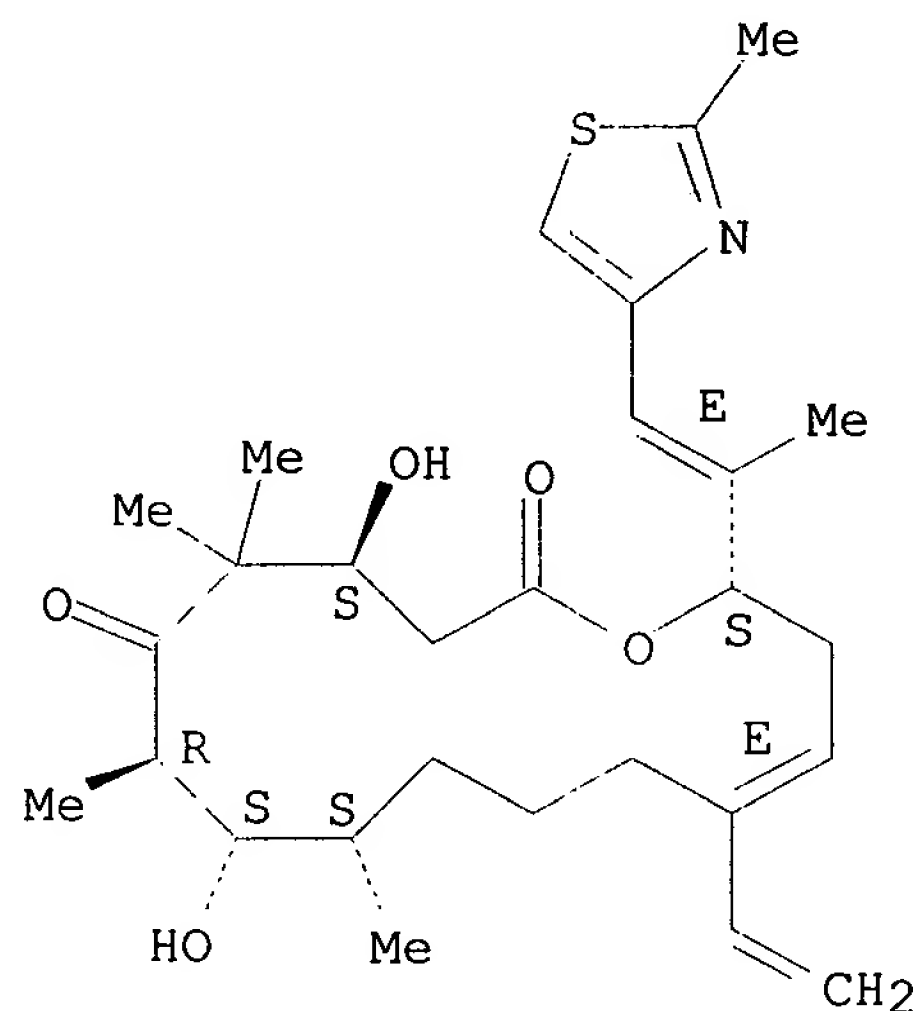
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-92-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-ethenyl-4,8-dihydroxy-5,5,7,9-
tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

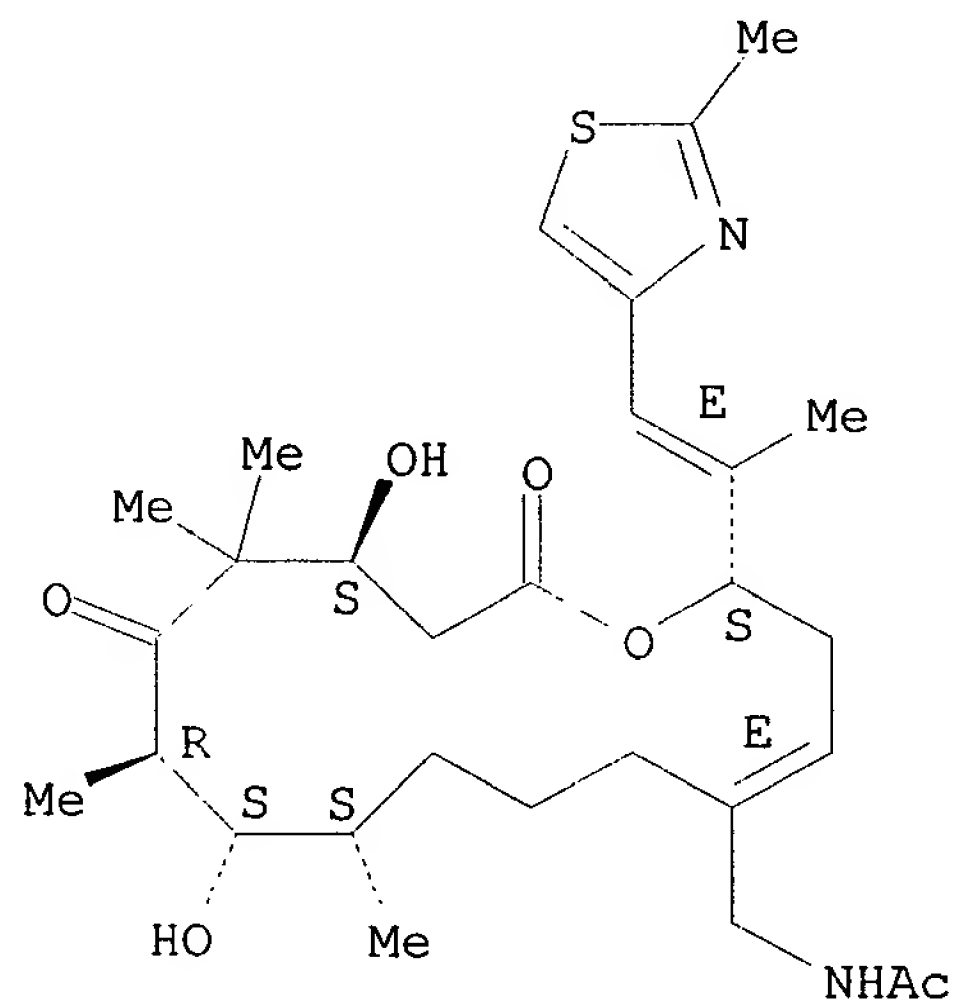
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-93-8 CAPLUS

CN Acetamide, N-[[[(2S,4E,9S,10S,11R,14S)-10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12,16-dioxooxacyclohexadec-4-en-5-yl]methyl]- (9CI) (CA INDEX NAME)

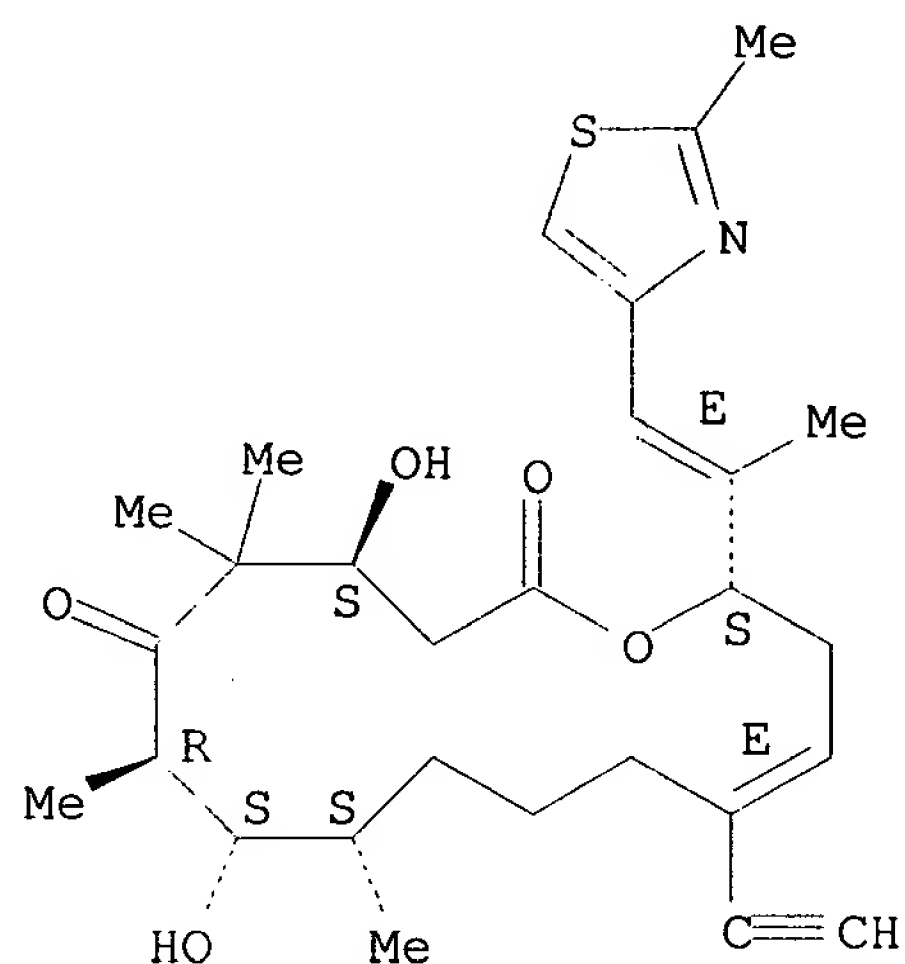
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-94-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-ethynyl-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

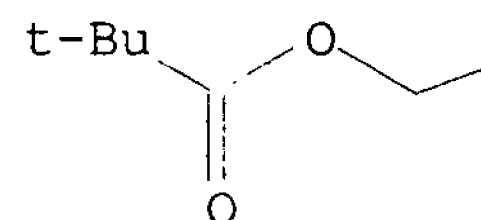
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



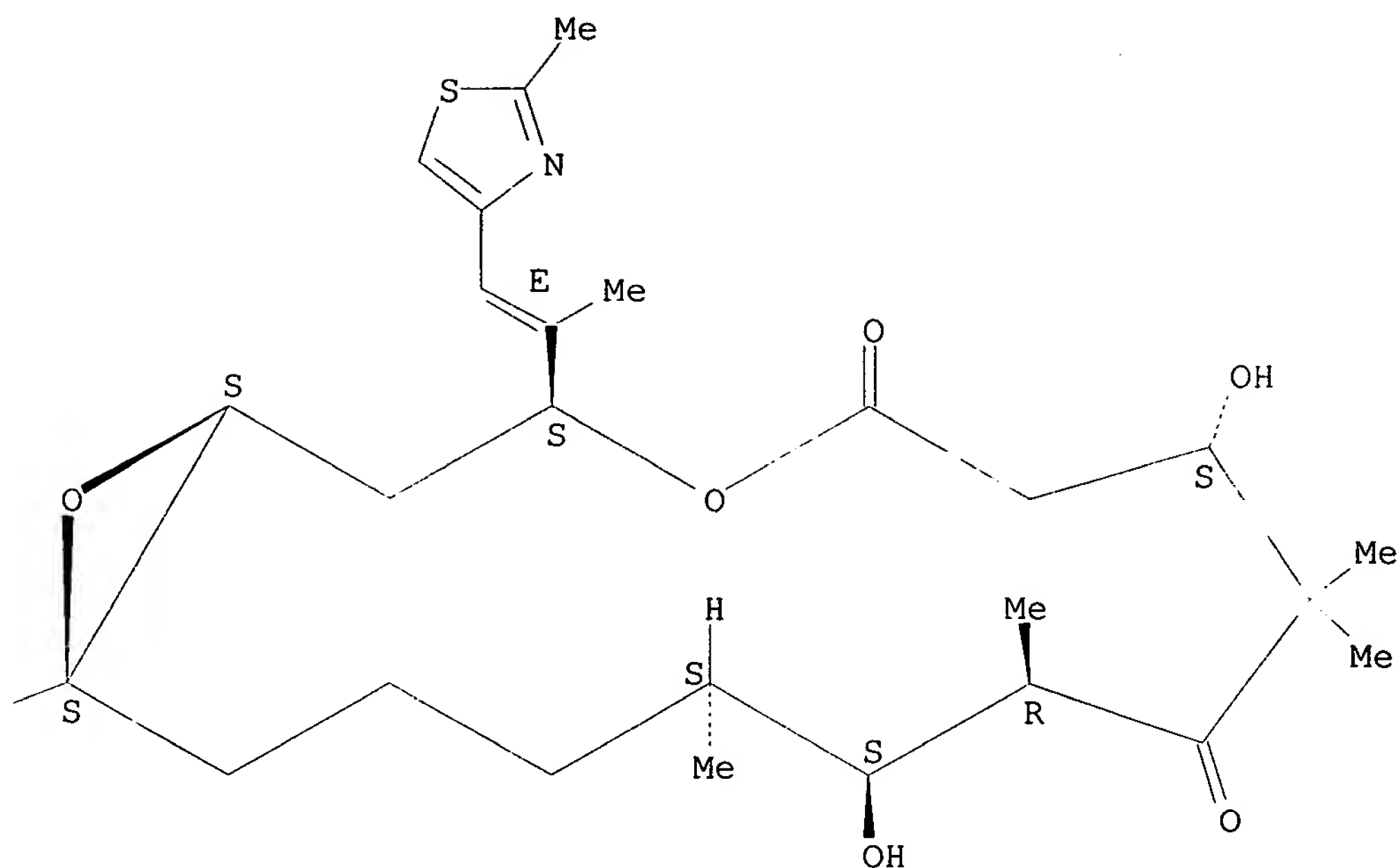
RN 201136-95-0 CAPLUS
CN Propanoic acid, 2,2-dimethyl-,
[(1S,3S,7S,10R,11S,12S,16S)-7,11-dihydroxy-
8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
5,9-dioxo-4,17-dioxabicyclo[14.1.0]heptadec-16-yl]methyl ester (9CI) (CA
INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

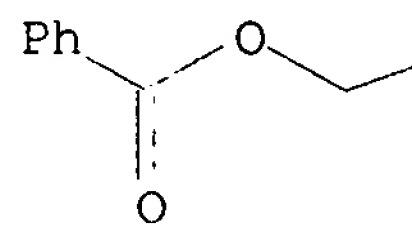


RN 201136-96-1 CAPLUS

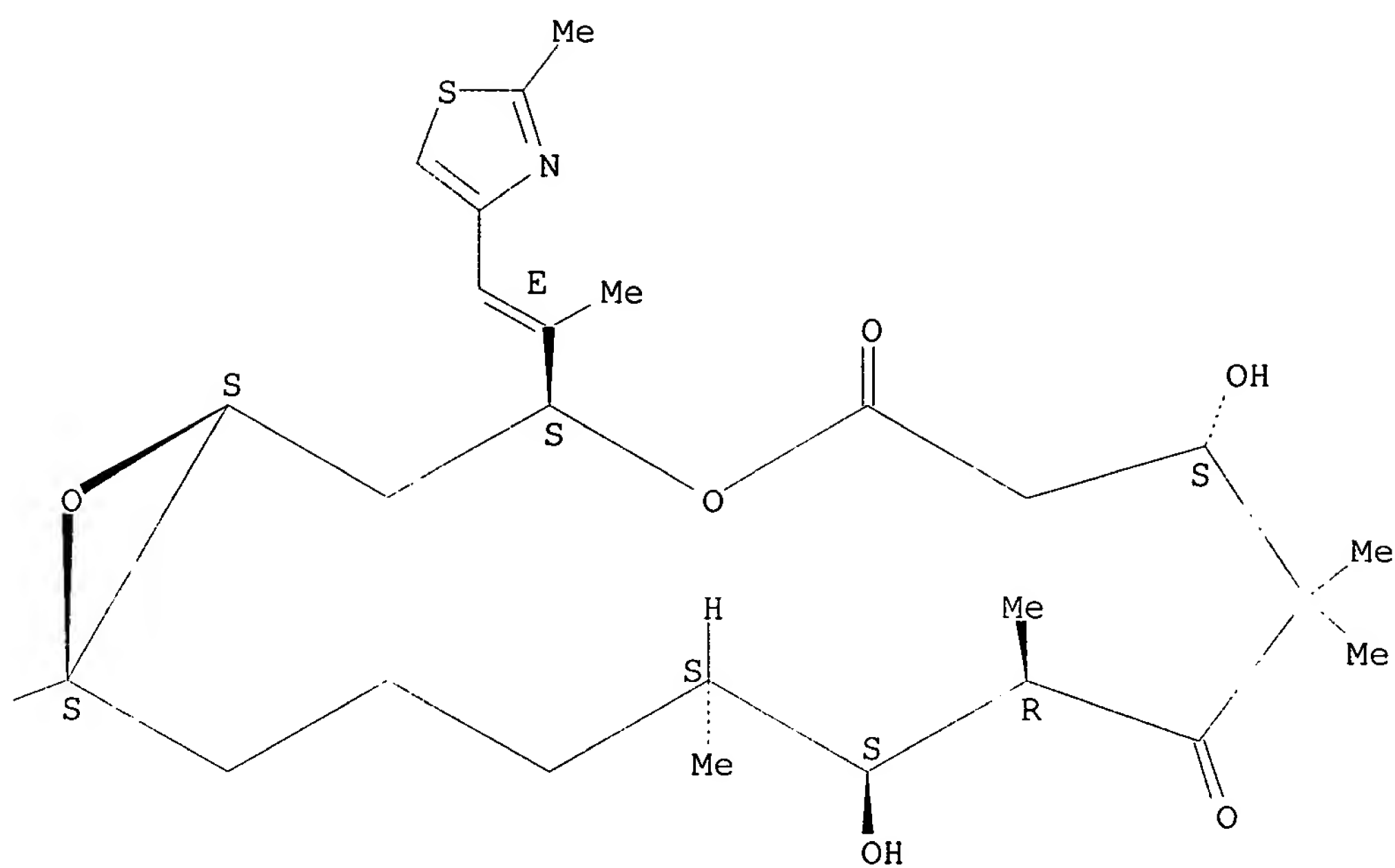
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-[(benzoyloxy)methyl]-
7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-A



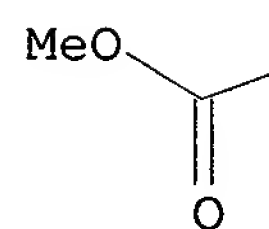
PAGE 1-B



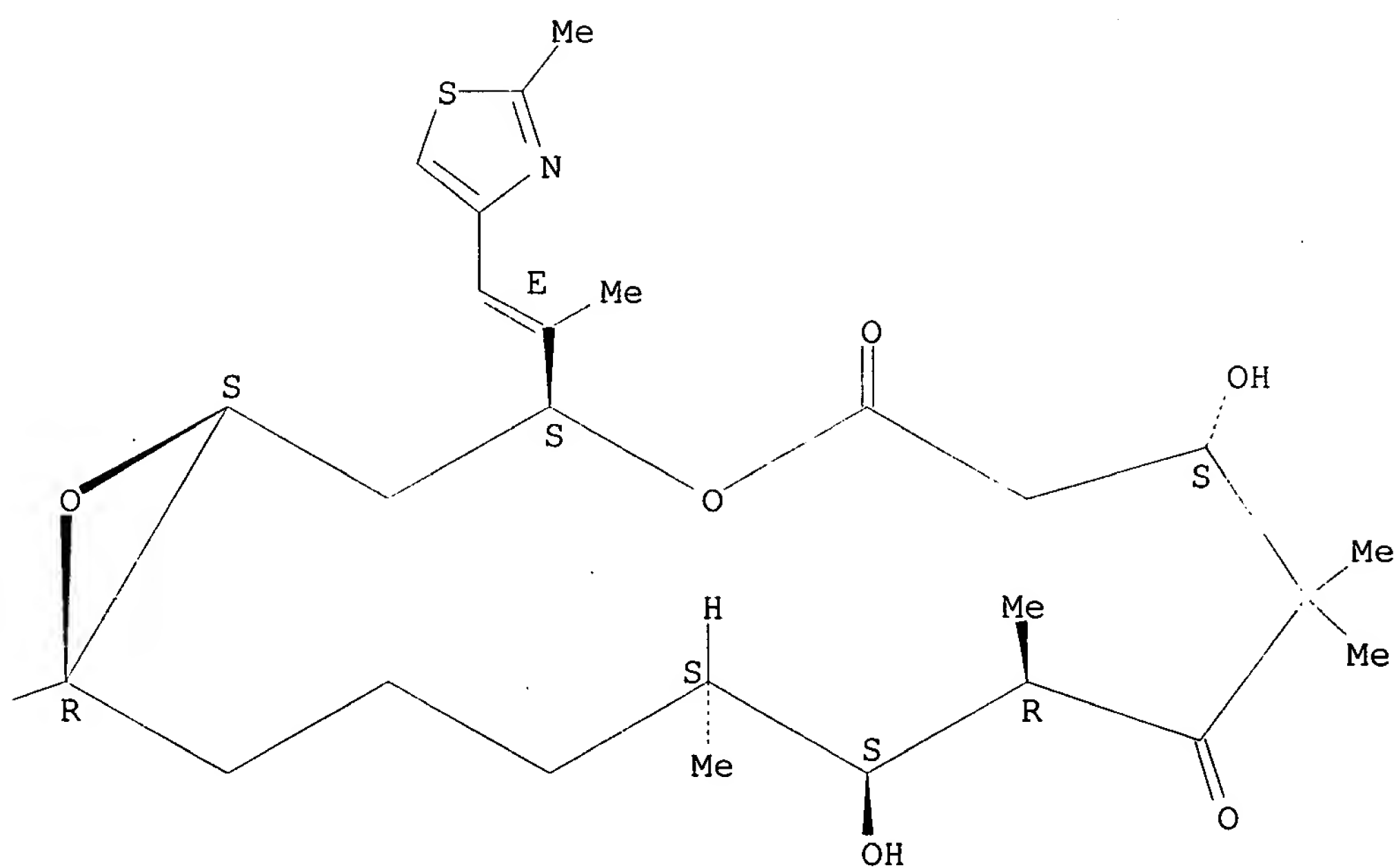
RN 201136-99-4 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-16-carboxylic acid,
7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-5,9-dioxo-, methyl ester, (1S,3S,7S,10R,11S,12S,16R)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-A

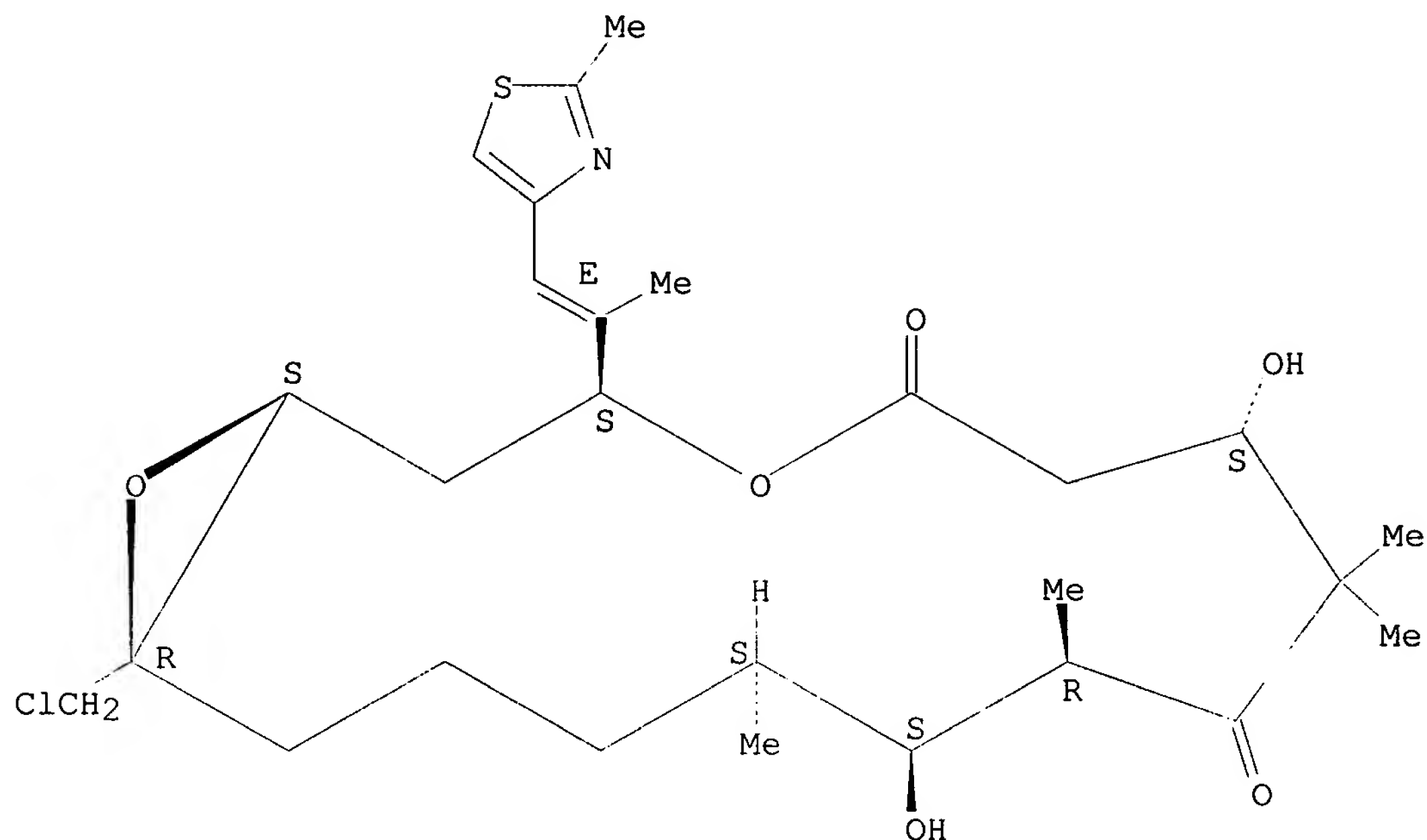


PAGE 1-B



RN 201137-00-0 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-(chloromethyl)-7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

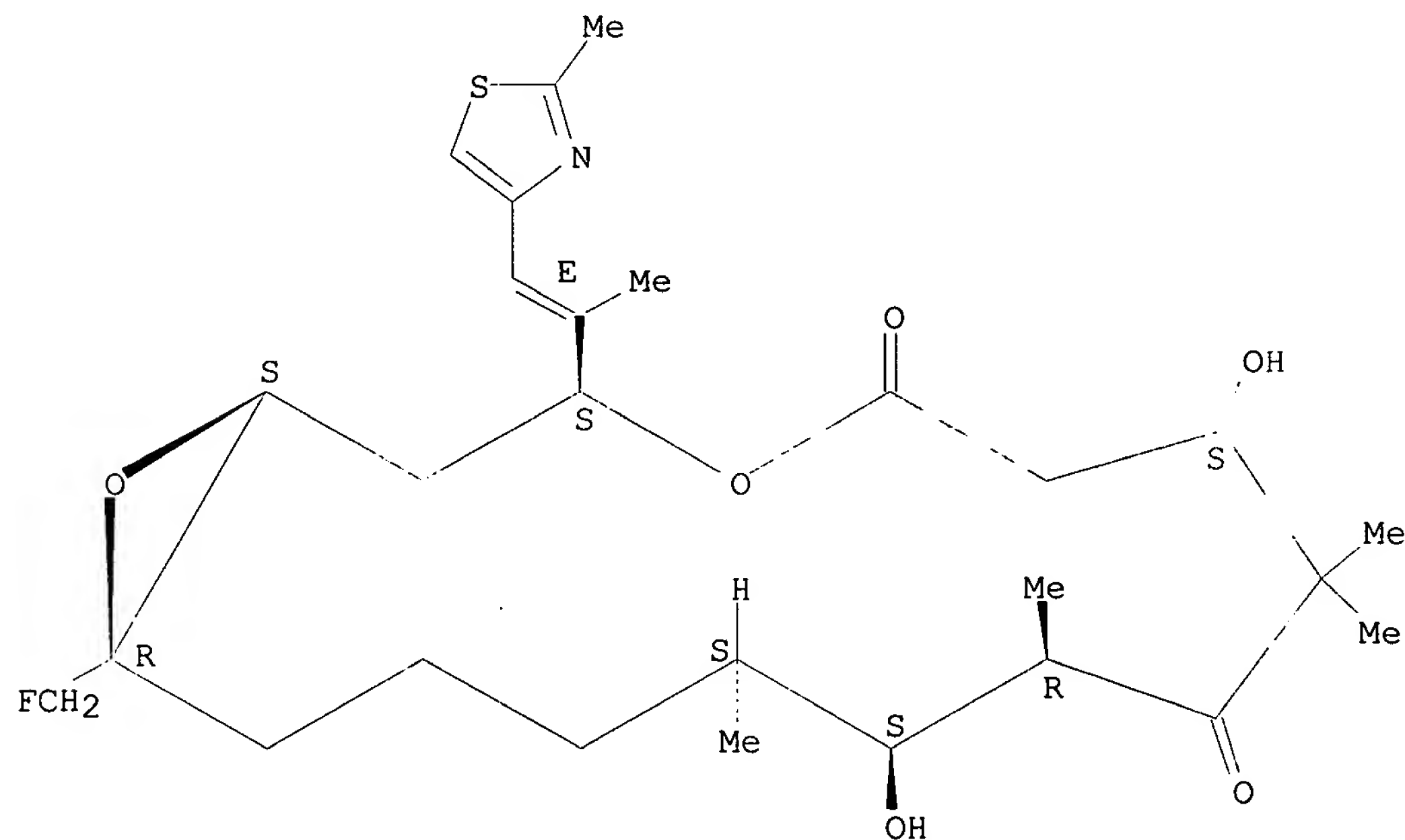
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201137-02-2 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-(fluoromethyl)-7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201137-03-3 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione,

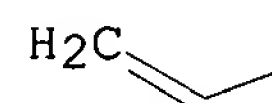
16-ethenyl-7,11-dihydroxy-

8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

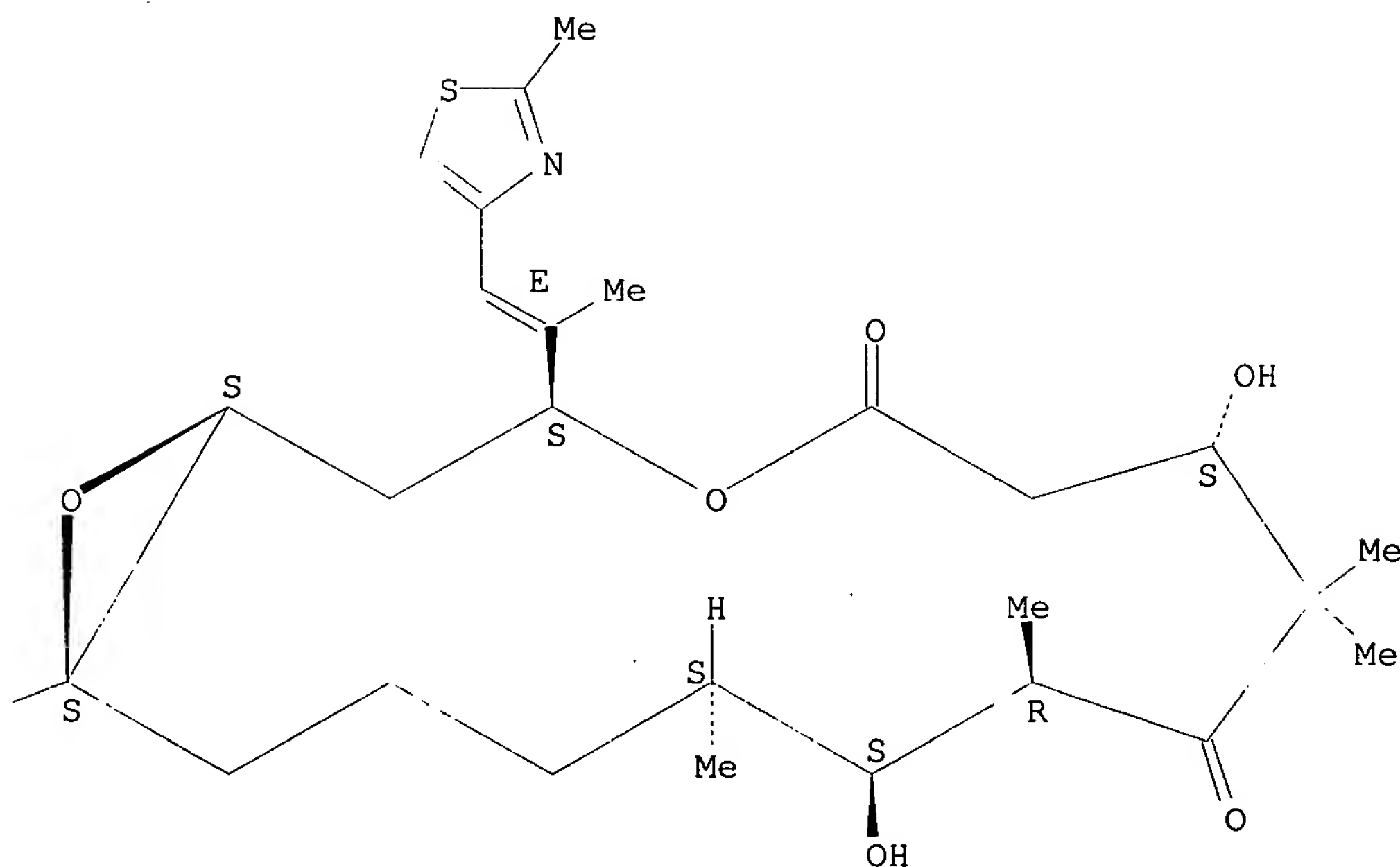
Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

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PAGE 1-B

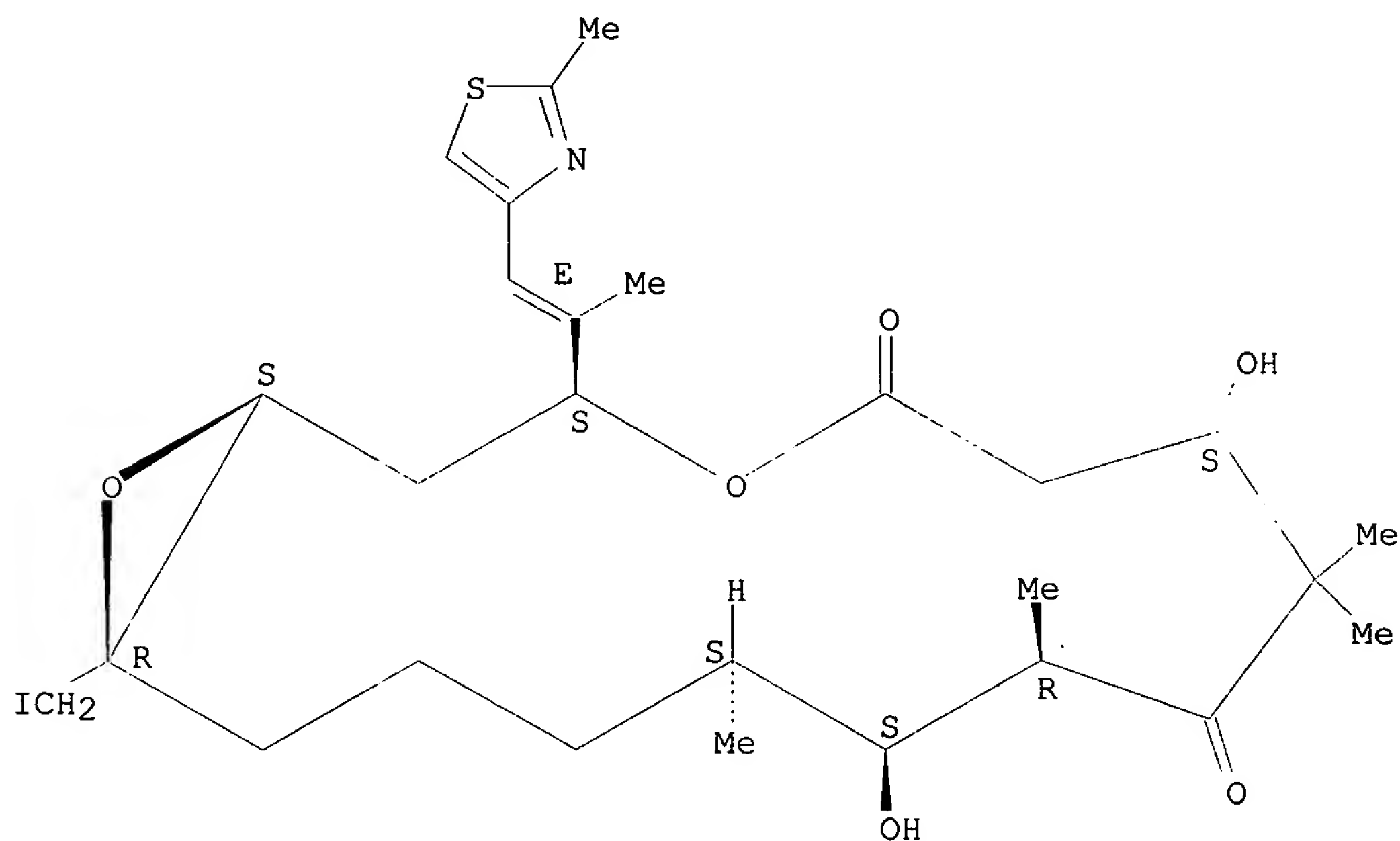


RN 201137-04-4 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-16-(iodomethyl)-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

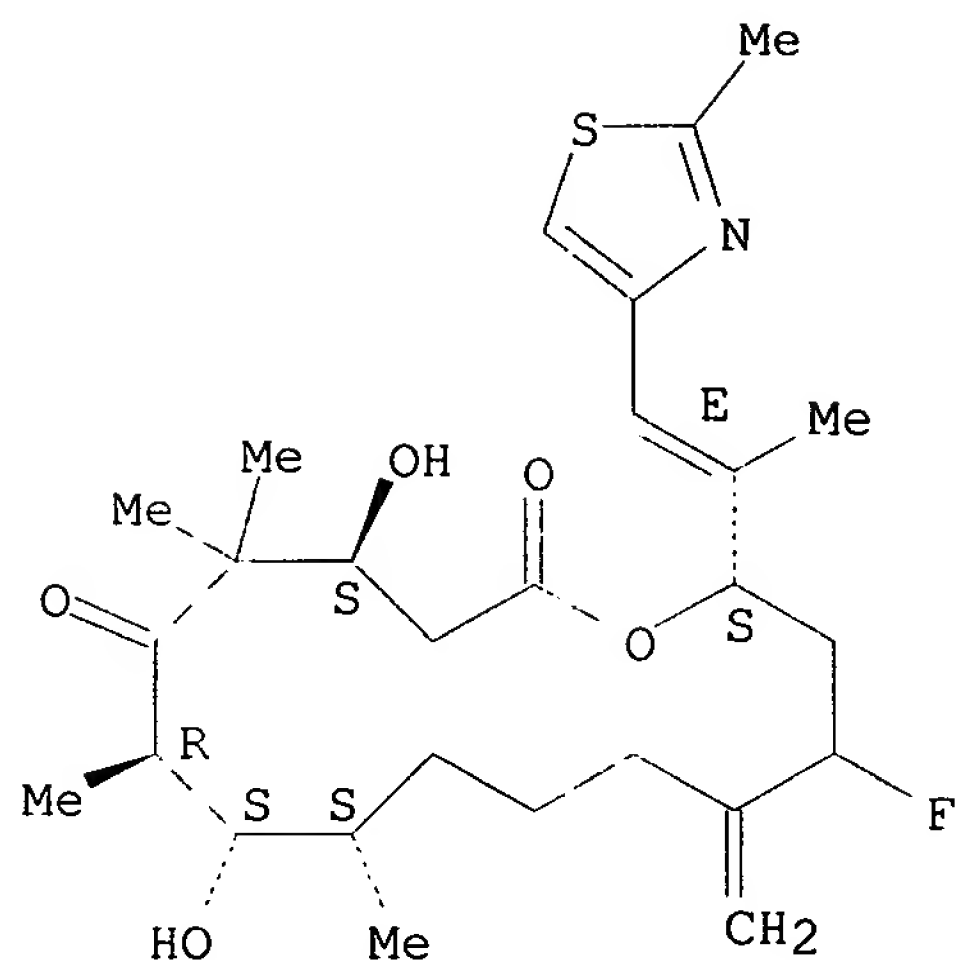


RN 211801-70-6 CAPLUS

CN Oxacyclohexadecane-2,6-dione,
14-fluoro-4,8-dihydroxy-5,5,7,9-tetramethyl-
13-methylene-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

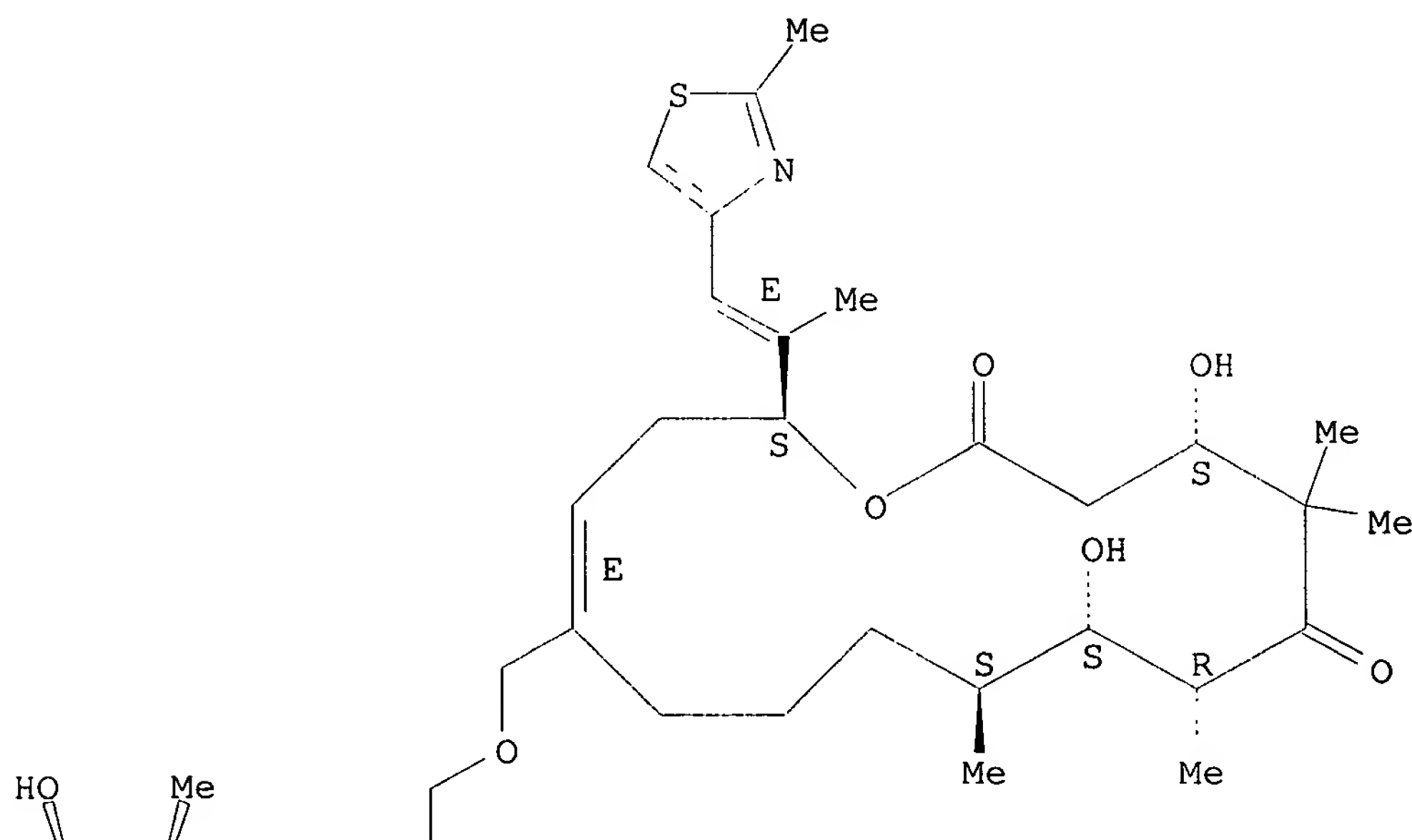


RN 211801-71-7 CAPLUS

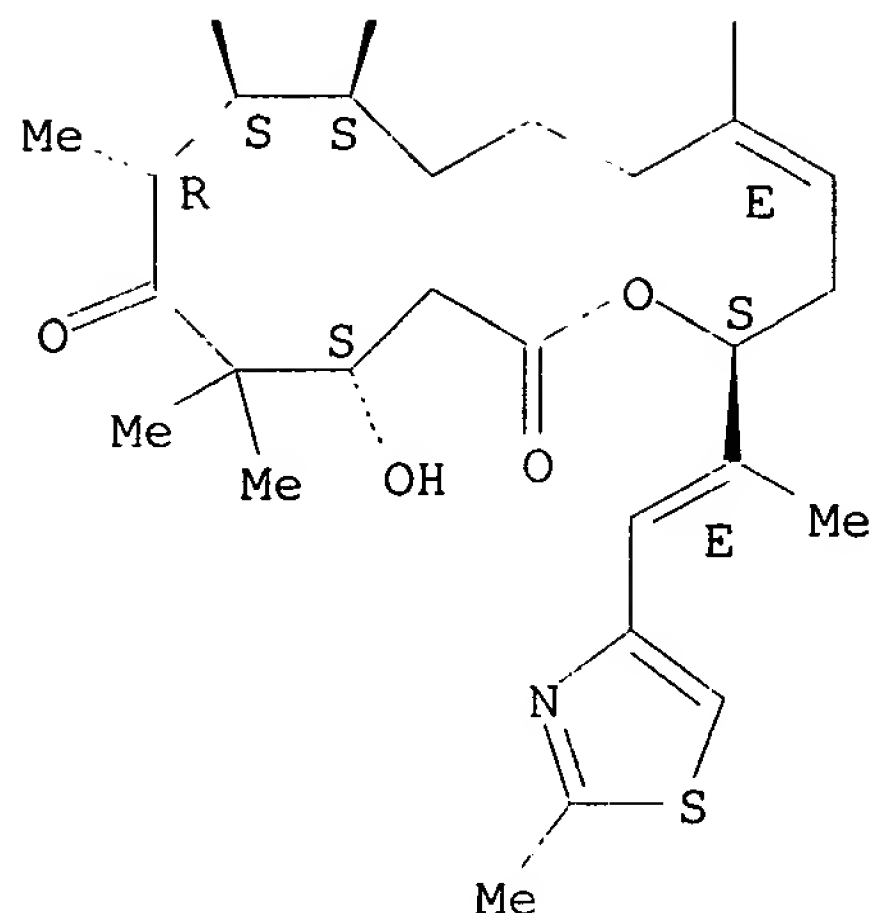
CN Oxacyclohexadec-13-ene-2,6-dione, 13,13'-[oxybis(methylene)]bis[4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,4'S,7R,7'R,8S,8'S,9S,9'S,13E,13'E,16S,16'S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-A



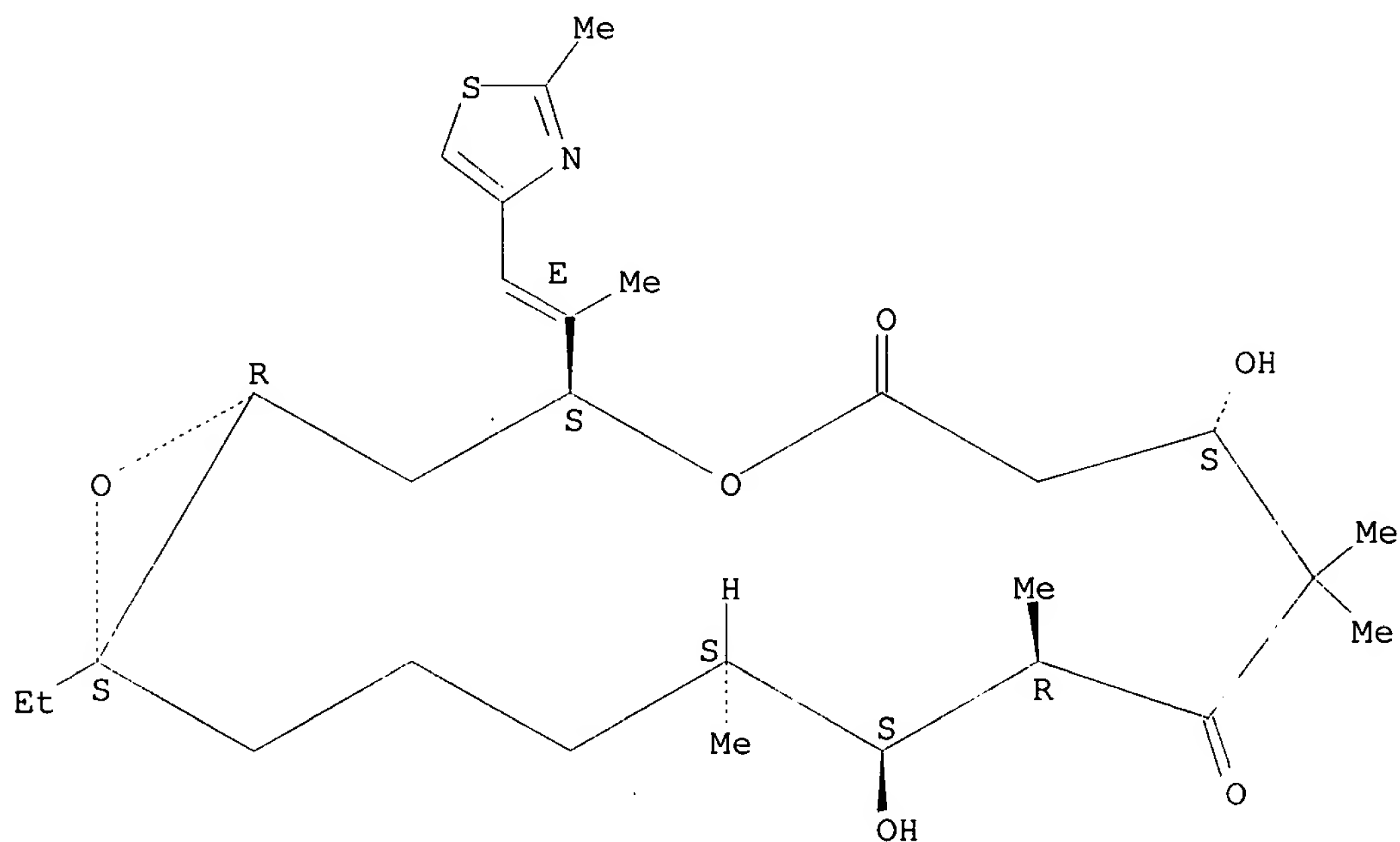
PAGE 2-A



RN 211801-84-2 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-ethyl-7,11-dihydroxy-
8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1R,3S,7S,10R,11S,12S,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



=> D BIB ABS HITSTR 13

L20 ANSWER 13 OF 28 CAPLUS COPYRIGHT 1999 ACS

AN 1998:352834 CAPLUS

DN 129:53436

TI Epothilone C, D, E and F, production process, and their use as
cytostatics

well as phytosanitary agents

IN Reichenbach, Hans; Hofle, Gerhard; Gerth, Klaus; Steinmetz, Heinrich

PA Gesellschaft Fur Biotechnologische Forschung m.b.H. (GBF), Germany;
Reichenbach, Hans; Hofle, Gerhard; Gerth, Klaus; Steinmetz, Heinrich

SO PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DT Patent

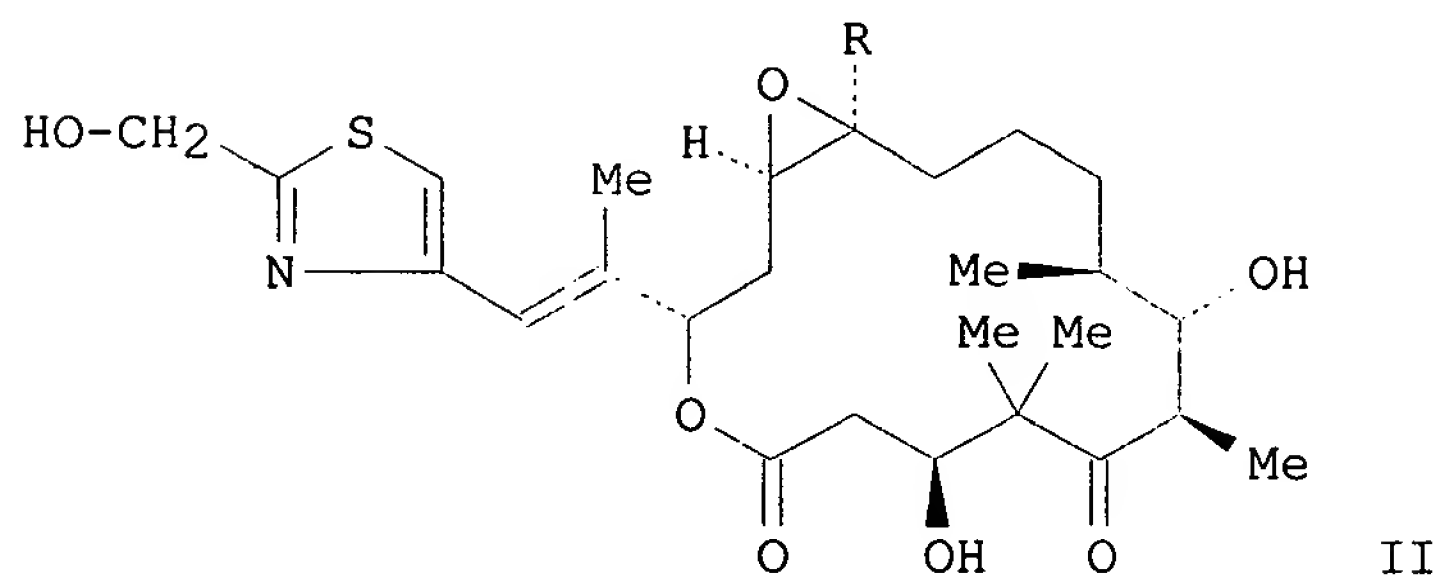
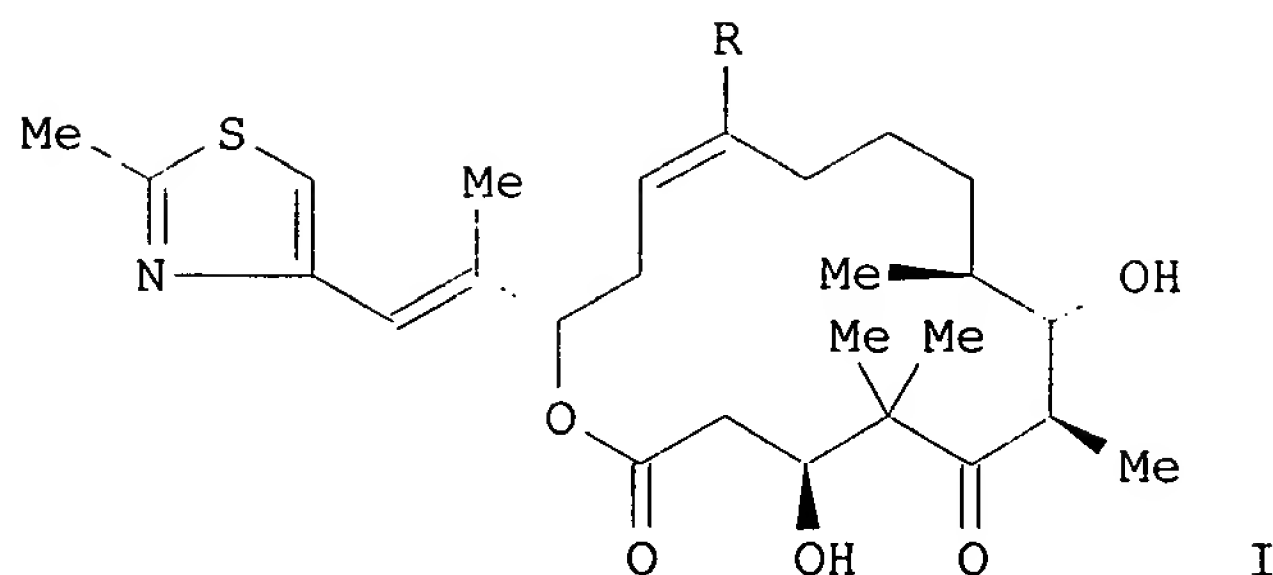
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,				
	DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,				
	LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,				
	RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN,				
	AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,				
	GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,				
	GN, ML, MR, NE, SN, TD, TG				
	AU 9854837	A1	19980610	AU 98-54837	19971118
PRAI	DE 96-19647580		19961118		
	DE 97-19707506		19970225		
	WO 97-EP6442		19971118		

GI

Revised



AB The present invention concerns the epothilones, esp. epothilone C [I; R = H] and epothilone D [I; R = Me] as well as epothilone E [II; R = H] and epothilone F [II; R = Me], the prodn. process, and their application for producing therapeutic agents, including cytostatic agents as well as phytosanitary agents.

IT 201049-37-8P, Epothilone E 208518-52-9P, Epothilone F

RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

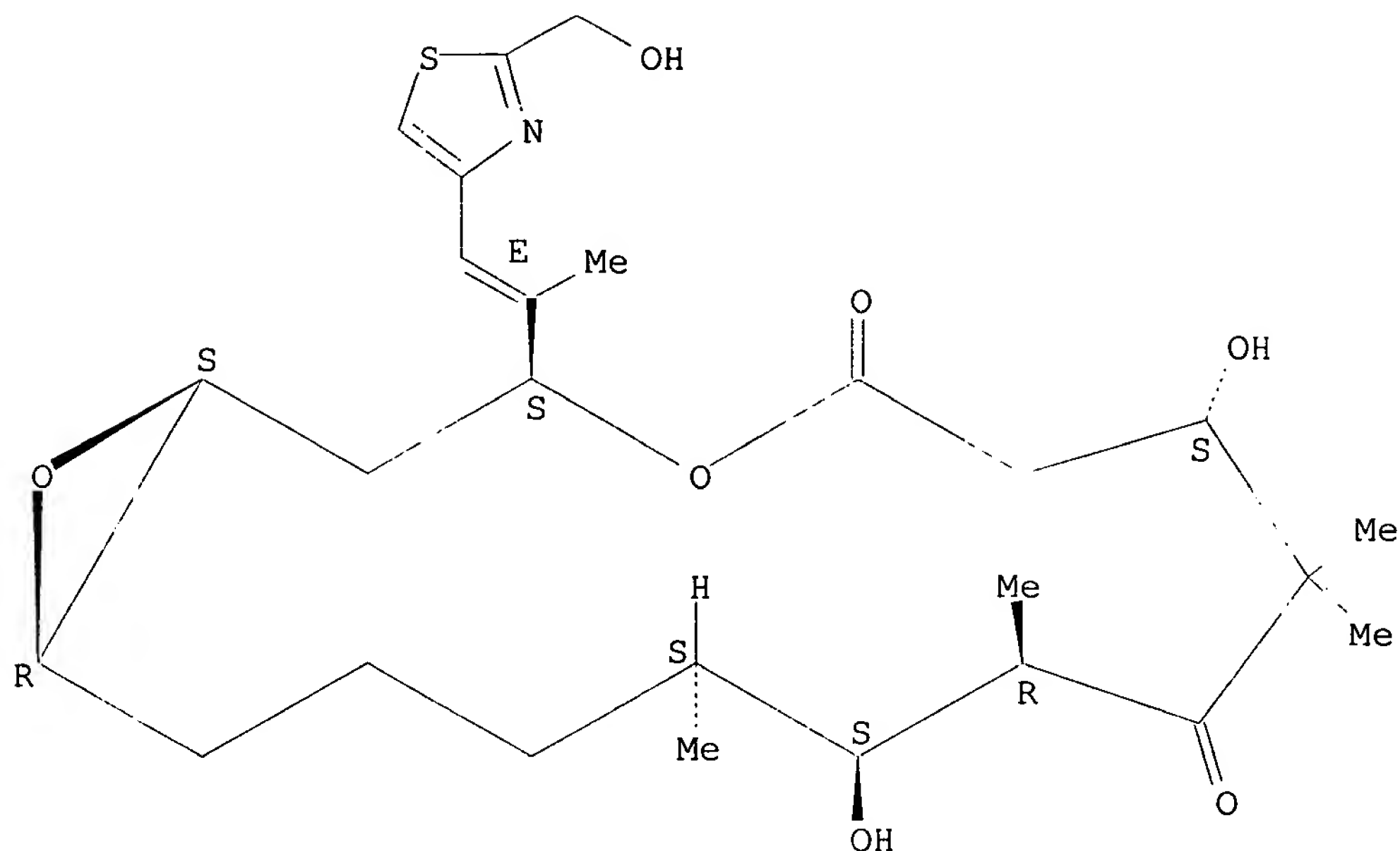
(epothilone C, D, E and F, prodn. process, and use as cytostatics well as phytosanitary agents)

RN 201049-37-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3-[(1E)-2-[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-8,8,10,12-tetramethyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

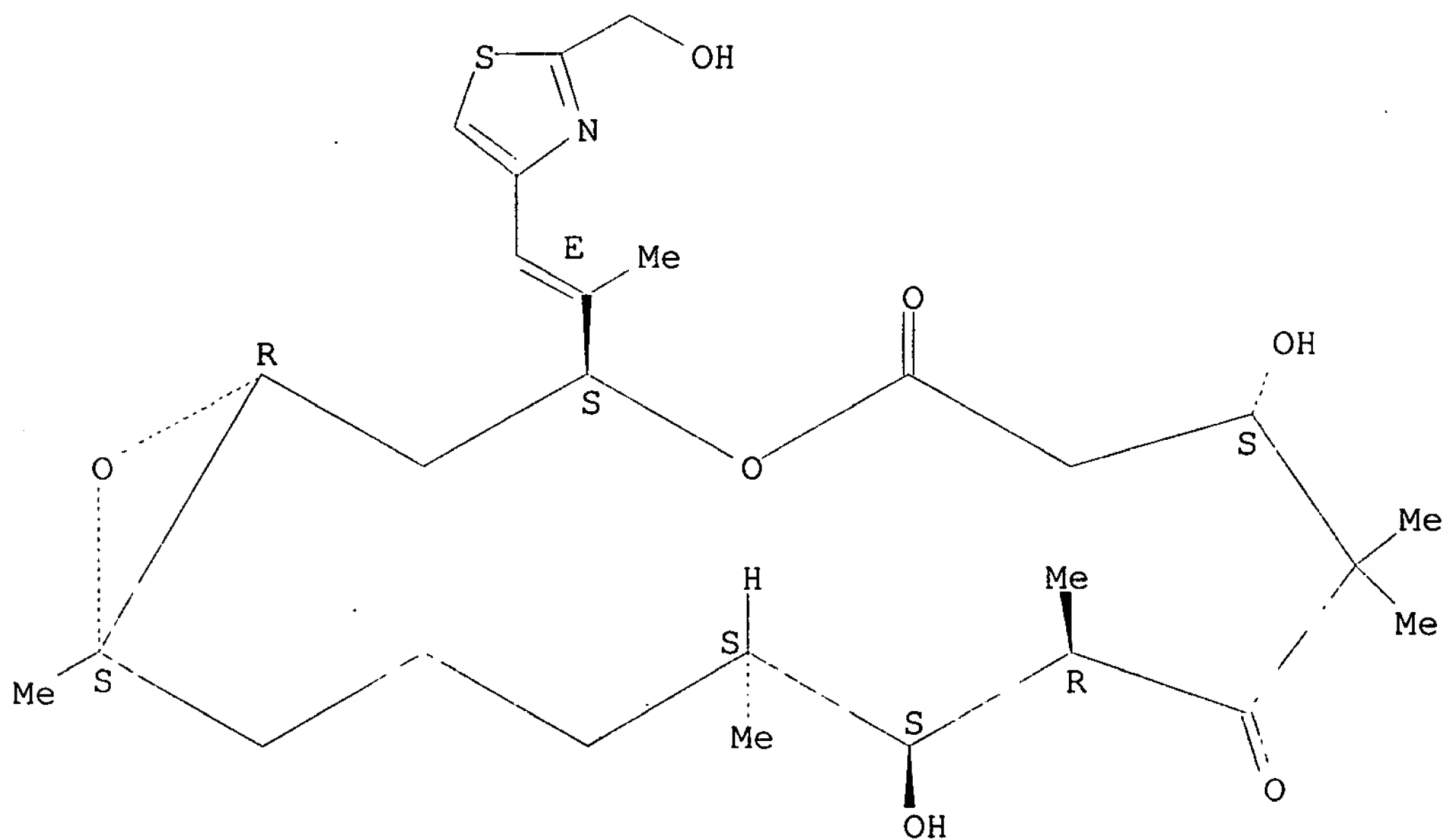
Double bond geometry as shown.



RN 208518-52-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3-[(1E)-2-[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-8,8,10,12,16-pentamethyl-, (1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

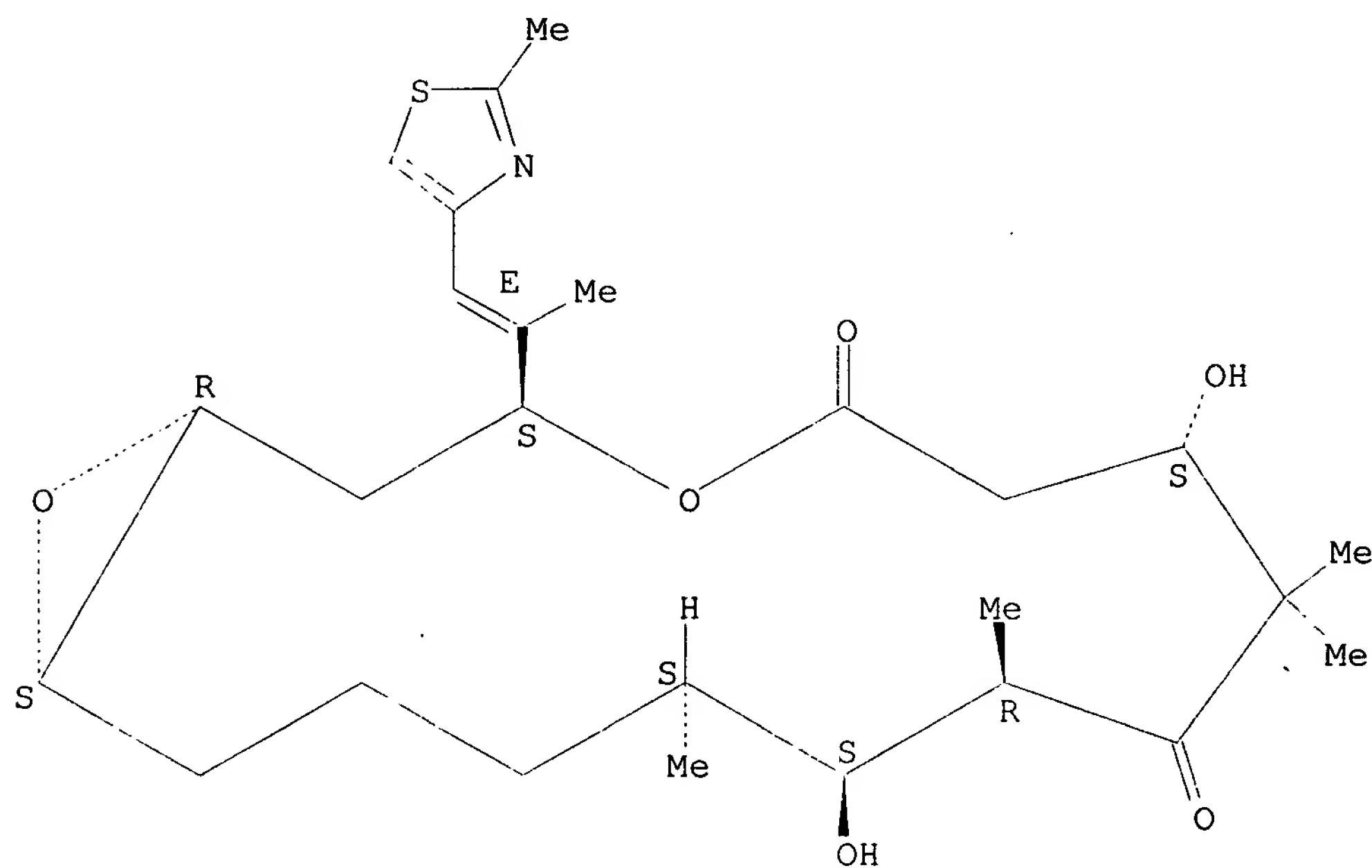


IT 193071-75-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(epothilone C, D, E and F, prodn. process, and use as cytostatics well)

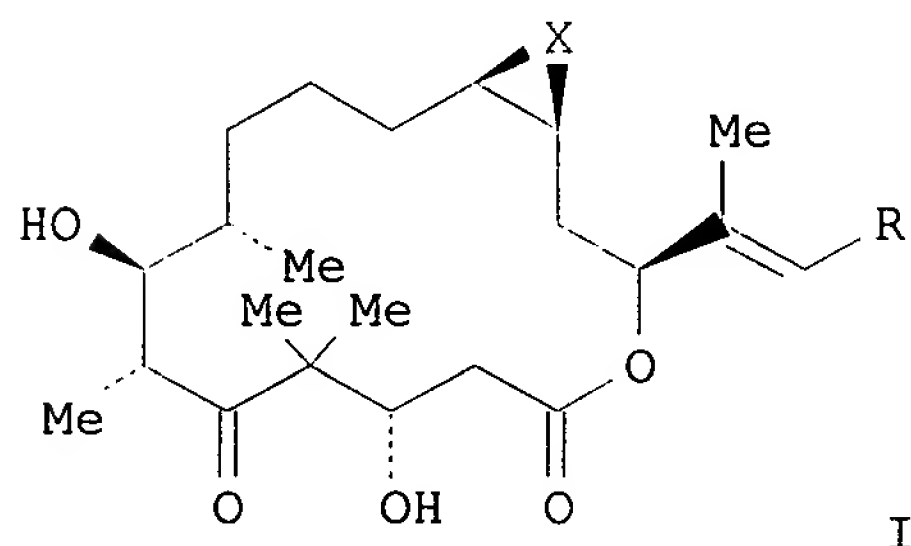
	as phytosanitary agents)
RN	193071-75-9 CAPLUS
CN	4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



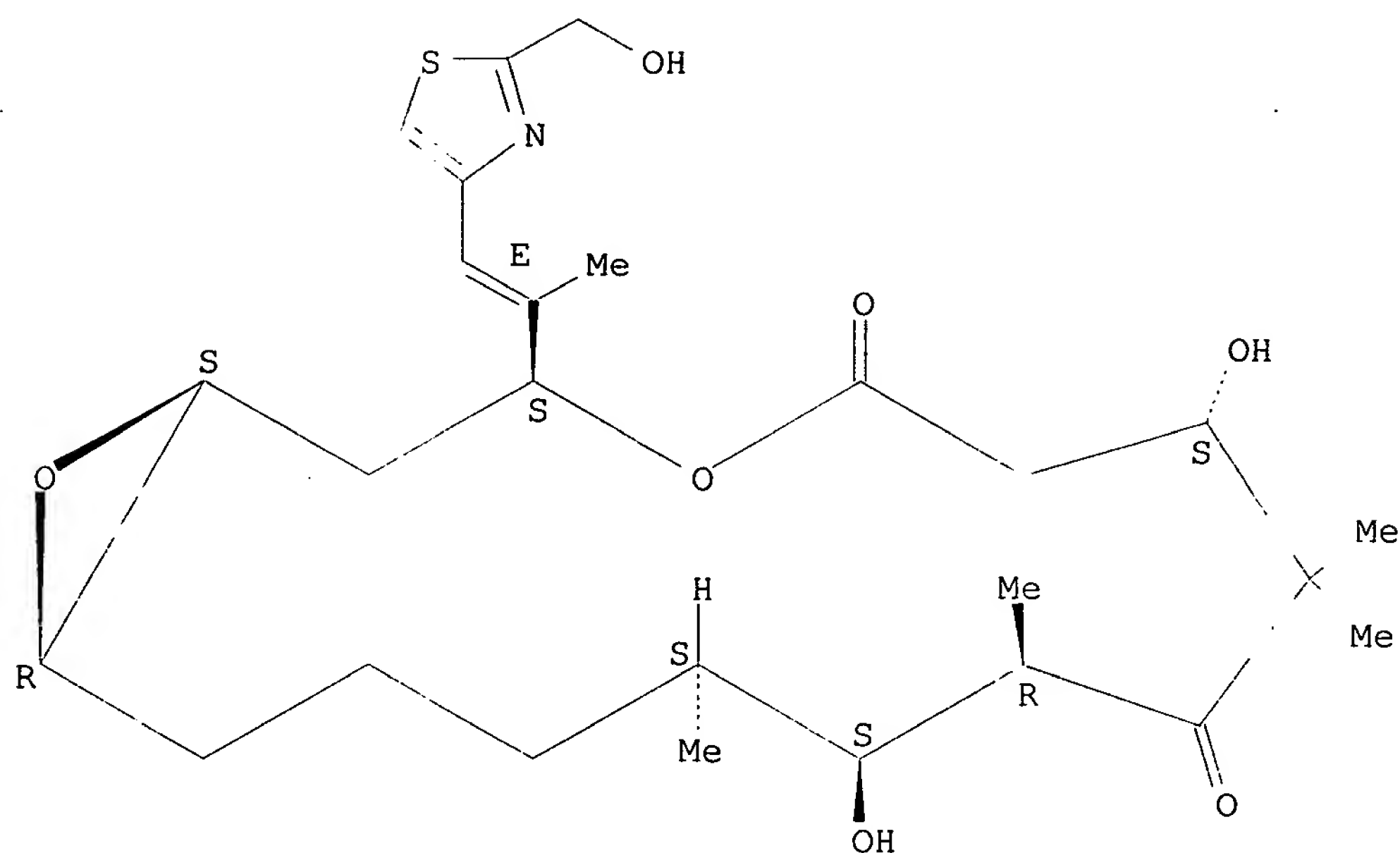
=> D BIB ABS HITSTR 14

L20 ANSWER 14 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1998:150476 CAPLUS
DN 128:230166
TI Total synthesis of epothilone E and analogs with modified side chains
through the Stille coupling reaction
AU Nicolaou, K. C.; He, Yun; Roschangar, Frank; King, N. Paul; Vourloumis,
Dionisios; Li, Tianhu
CS Department of Chemistry, Skaggs Inst. for Chemical Biology, Scripps Res.
Inst., La Jolla, CA, 92037, USA
SO Angew. Chem., Int. Ed. (1998), 37(1/2), 84-87
CODEN: ACIEF5; ISSN: 1433-7851
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
OS CASREACT 128:230166
GI



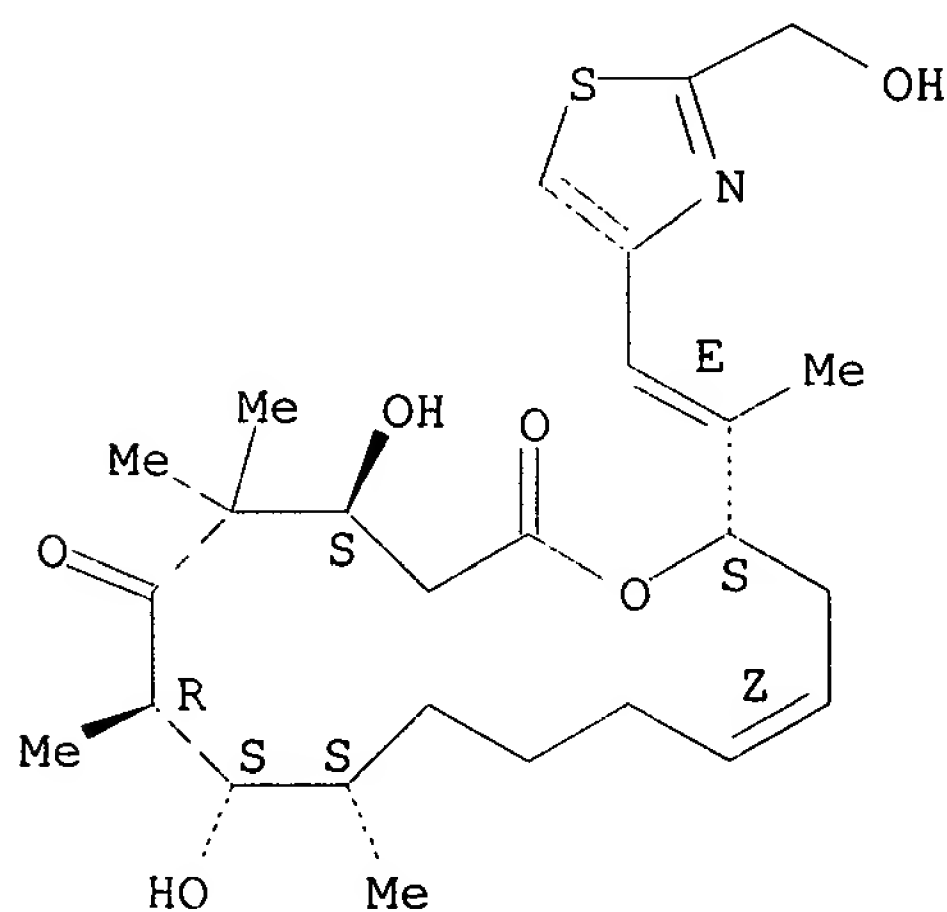
AB The first total synthesis of epothilone E [I; R =
2-(hydroxymethyl)thiazol-
4-yl, X = O] in which an olefin metathesis is used to form the
macrocyclic
lactone and a Stille coupling reaction is used to form the side chain is
reported. The Stille coupling reaction was used to prep. deoxygenated
side-chain analogs I [R = thiazol-4-yl, thiazol-5-yl, thiazol-2-yl,
2-(5-acetoxypentyl)thiazol-4-yl, 2-piperidinethiazol-4-yl,
2-(methylthio)thiazol-4-yl, 2-furyl, 2-thienyl, Ph, 3-pyridyl; X = bond].
IT **201049-37-8P**, (-)-Epothilone E
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic
preparation); BIOL (Biological study); PREP (Preparation)
(total synthesis of epothilone E and analogs through the Stille
coupling reaction)
RN 201049-37-8 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3-[(1E)-2-
[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-8,8,10,12-tetramethyl-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT 204513-12-2P, Desoxyepothilone E
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (total synthesis of epothilone E and analogs through the Stille
 coupling reaction)
 RN 204513-12-2 CAPLUS
 CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-16-[(1E)-2-[2-
 (hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-5,5,7,9-tetramethyl-,
 (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

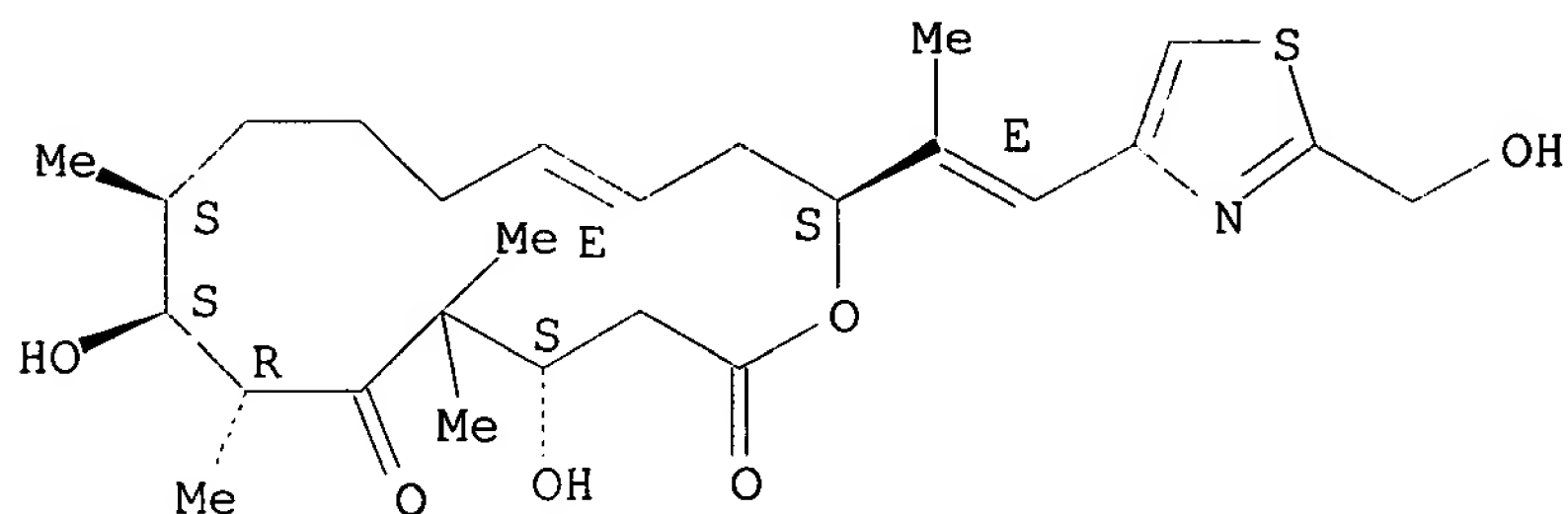
Absolute stereochemistry. Rotation (-).
 Double bond geometry as shown.



IT 204513-14-4P 204513-35-9P 204513-38-2P
 204513-39-3P 204513-40-6P 204513-45-1P
 204513-48-4P 204513-49-5P 204513-50-8P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (total synthesis of epothilone E and analogs through the Stille

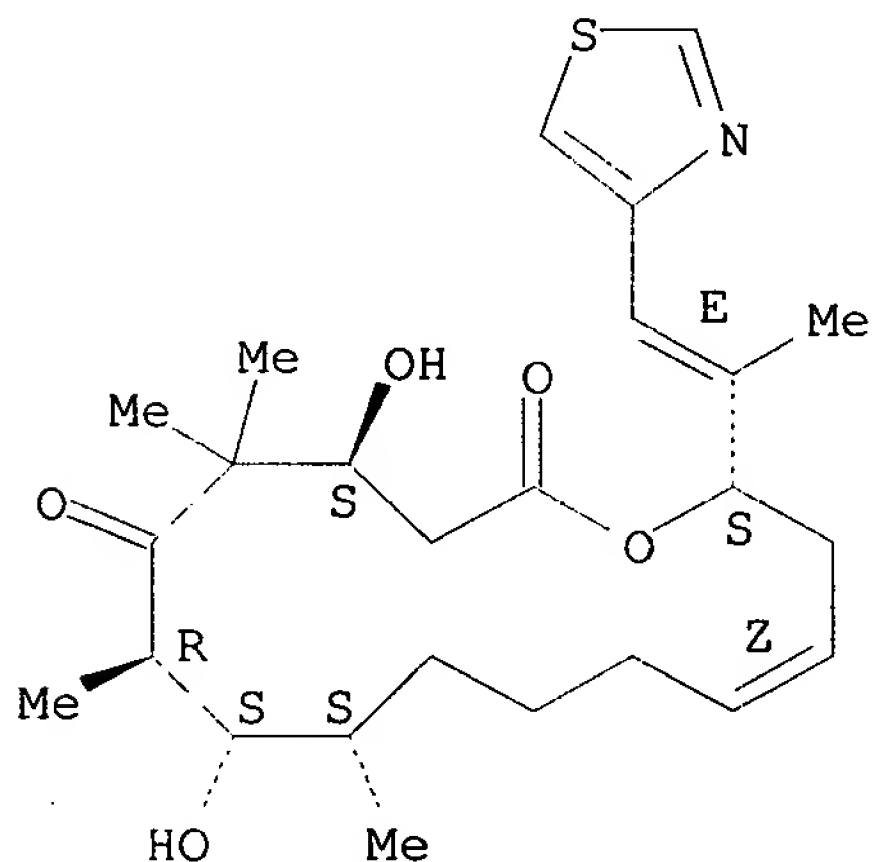
coupling reaction)
 RN 204513-14-4 CAPLUS
 CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-16-[(1E)-2-[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.



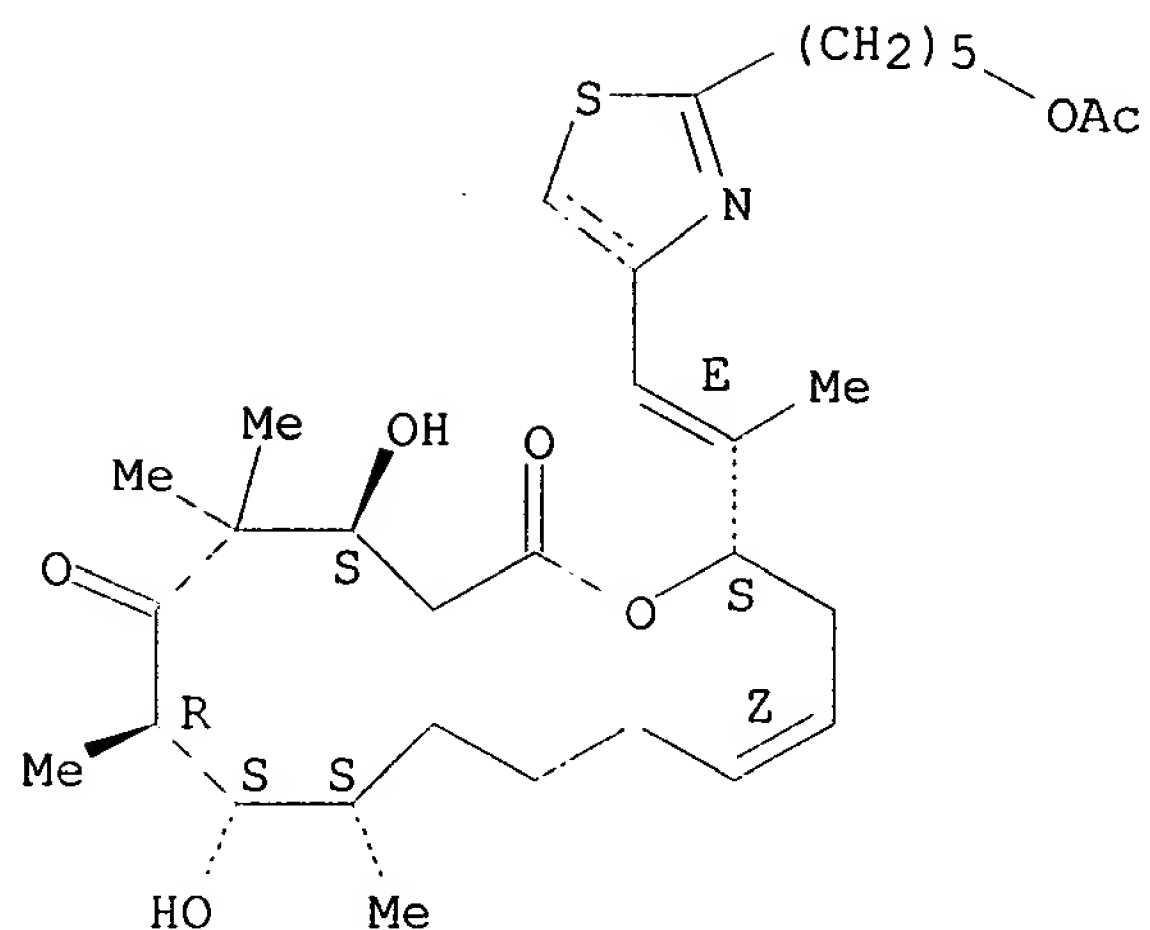
RN 204513-35-9 CAPLUS
 CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.



RN 204513-38-2 CAPLUS
 CN Oxacyclohexadec-13-ene-2,6-dione, 16-[(1E)-2-[2-[5-(acetyloxy)pentyl]-4-thiazolyl]-1-methylethenyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

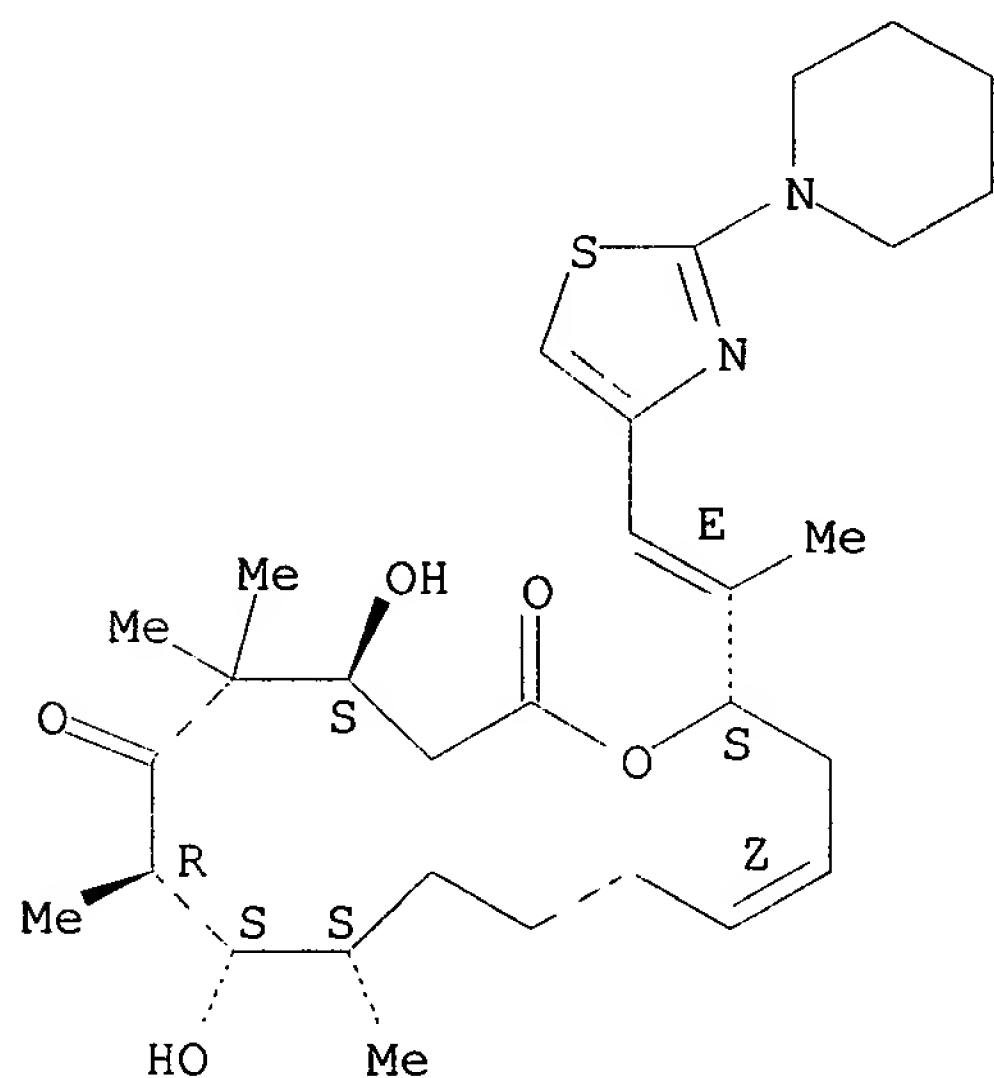
Absolute stereochemistry.
 Double bond geometry as shown.



RN 204513-39-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-[2-(1-piperidinyl)-4-thiazolyl]ethenyl]-,
(4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

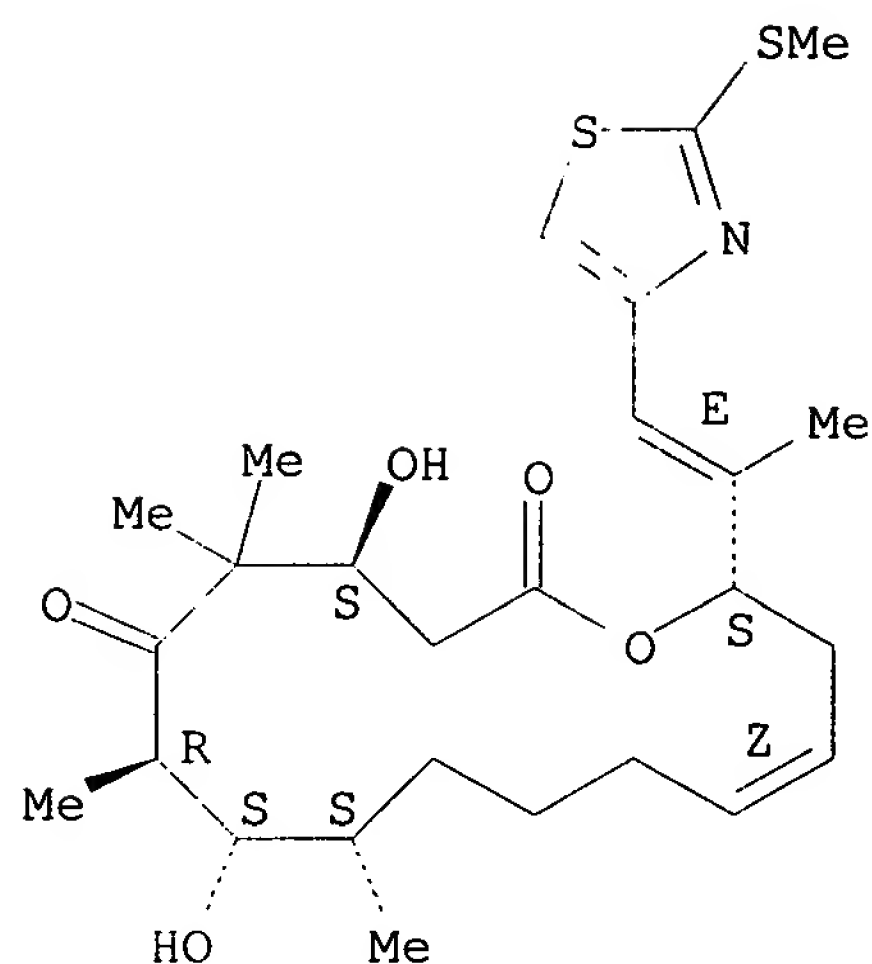
Absolute stereochemistry.
Double bond geometry as shown.



RN 204513-40-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-[2-(methylthio)-4-thiazolyl]ethenyl]-,
(4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

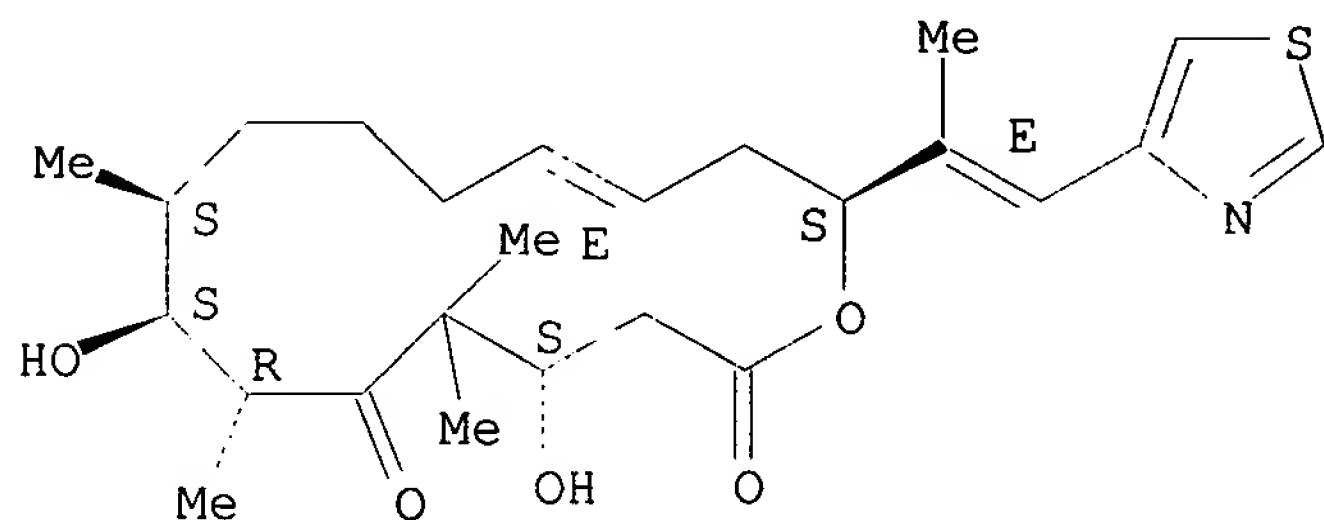


RN 204513-45-1 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI)

(CA INDEX NAME)

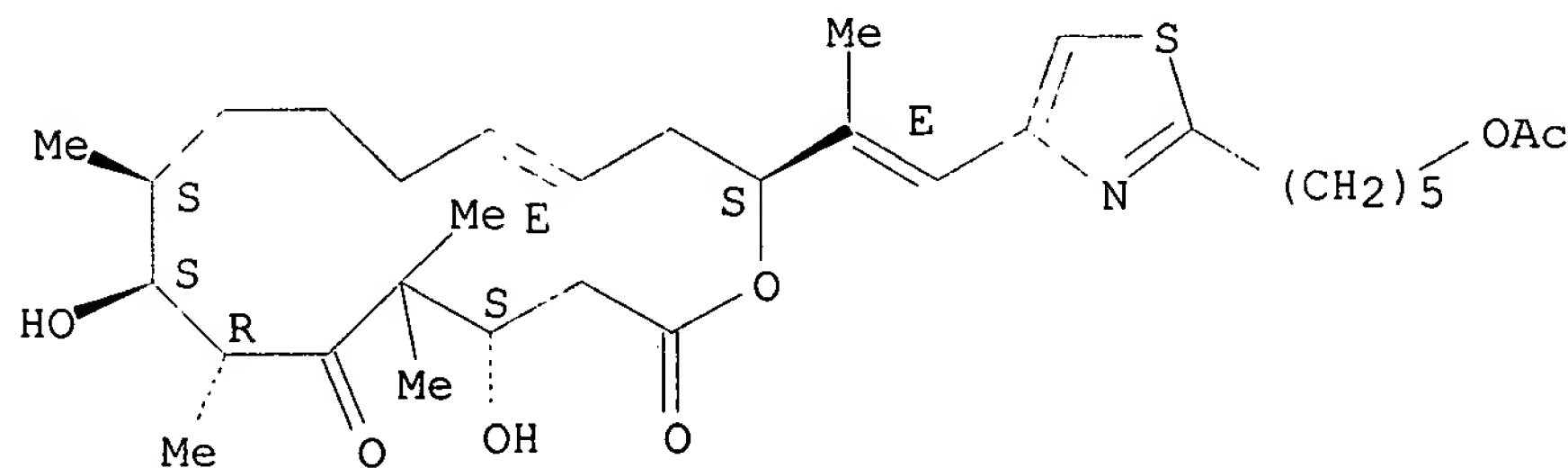
Absolute stereochemistry.
Double bond geometry as shown.



RN 204513-48-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 16-[(1E)-2-[2-[5-(acetyloxy)pentyl]-4-thiazolyl]-1-methylethenyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

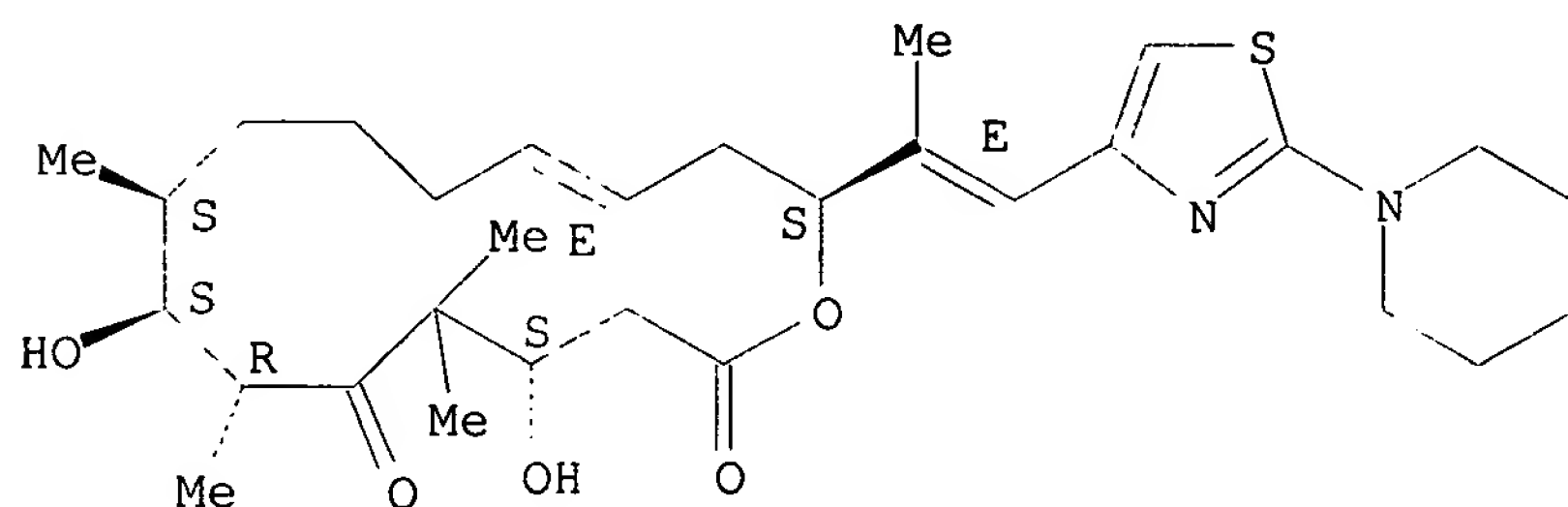


RN 204513-49-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-[2-(1-piperidinyl)-4-thiazolyl]ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

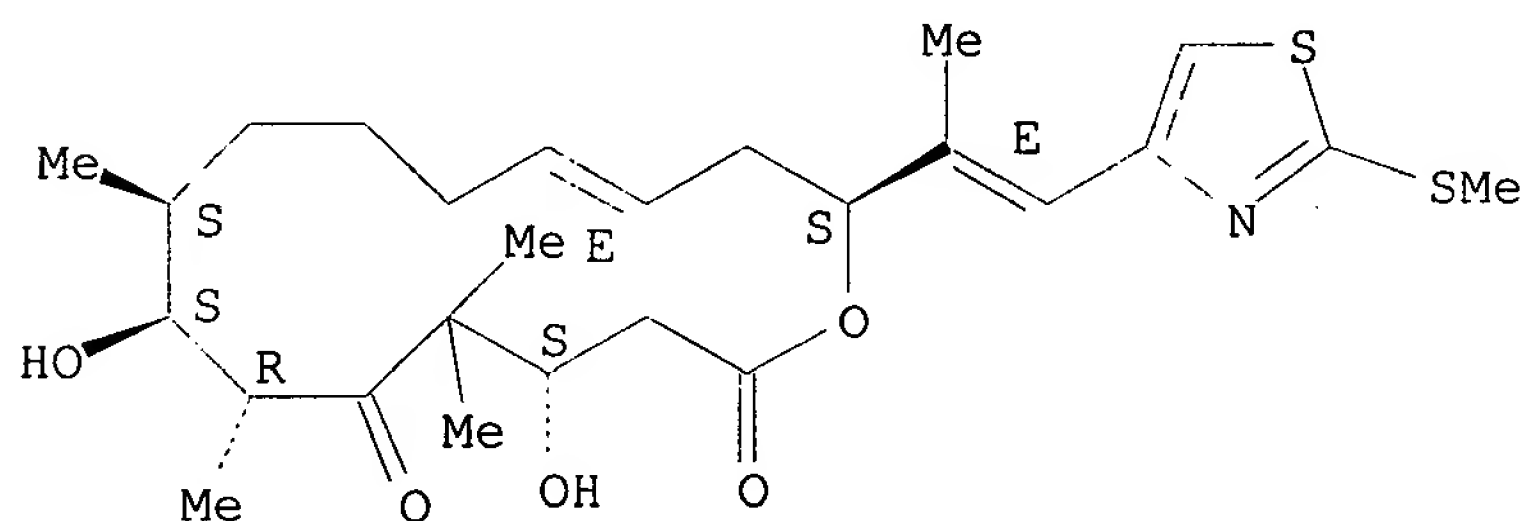


RN 204513-50-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-[2-(methylthio)-4-thiazolyl]ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



=> D BIB ABS HITSTR 15

120 ANSWER 15 OF 28 CAPLUS COPYRIGHT 1999 ACS

AN 1998:729 CAPLUS

DN 128:88685

TI Metathesis vs metastasis: the chemistry and biology of the epothilones

AU Finlay, Ray

CS Dep. Chemistry, The Skaggs Inst. for Chemical Biol., The Scripps Res.
Inst., La Jolla, CA, 92037, USA

SO Chem. Ind. (London) (1997), (24), 991-996

CODEN: CHINAG; ISSN: 0009-3068

PB Society of Chemical Industry

DT Journal; General Review

LA English

AB A review with 15 refs. on a recent entry onto the scene of potentially useful natural products, the epothilones A - E, providing valuable information for the fight against cancer via their interaction with microtubules.

IT 201049-37-8P

RL: BAC (Biological activity or effector, except adverse); BOC
(Biological

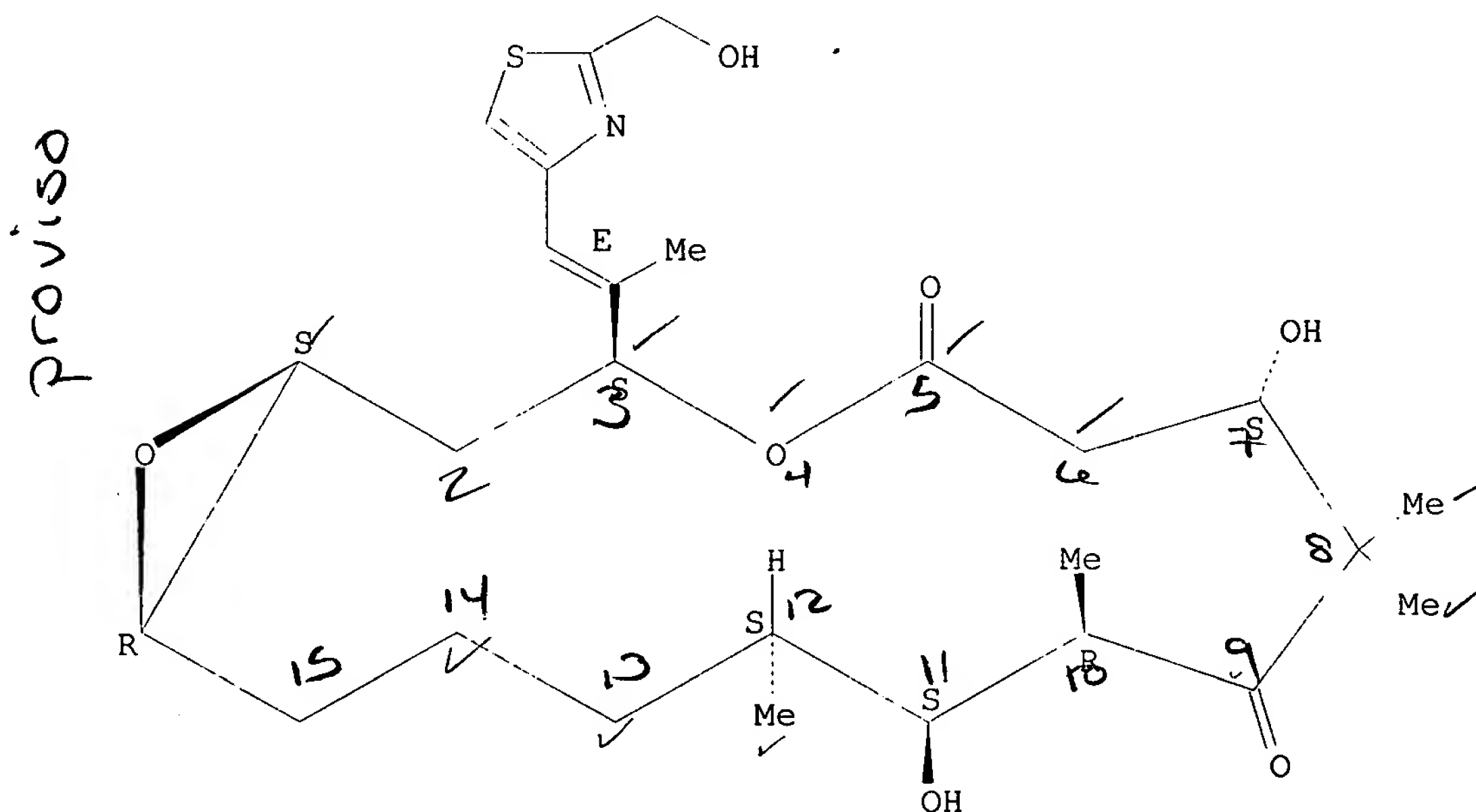
occurrence); SPN (Synthetic preparation); THU (Therapeutic use); BIOL
(Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(chem. and bioactivity of the epothilones)

RN 201049-37-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3-[(1E)-2-
[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-8,8,10,12-tetramethyl-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

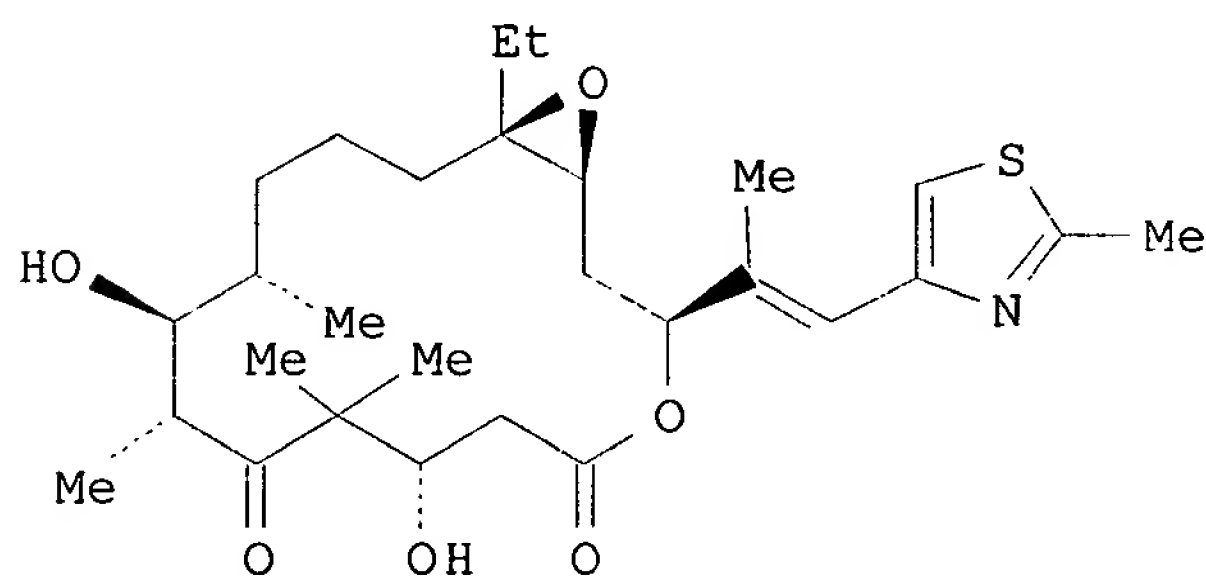
Absolute stereochemistry.

Double bond geometry as shown.



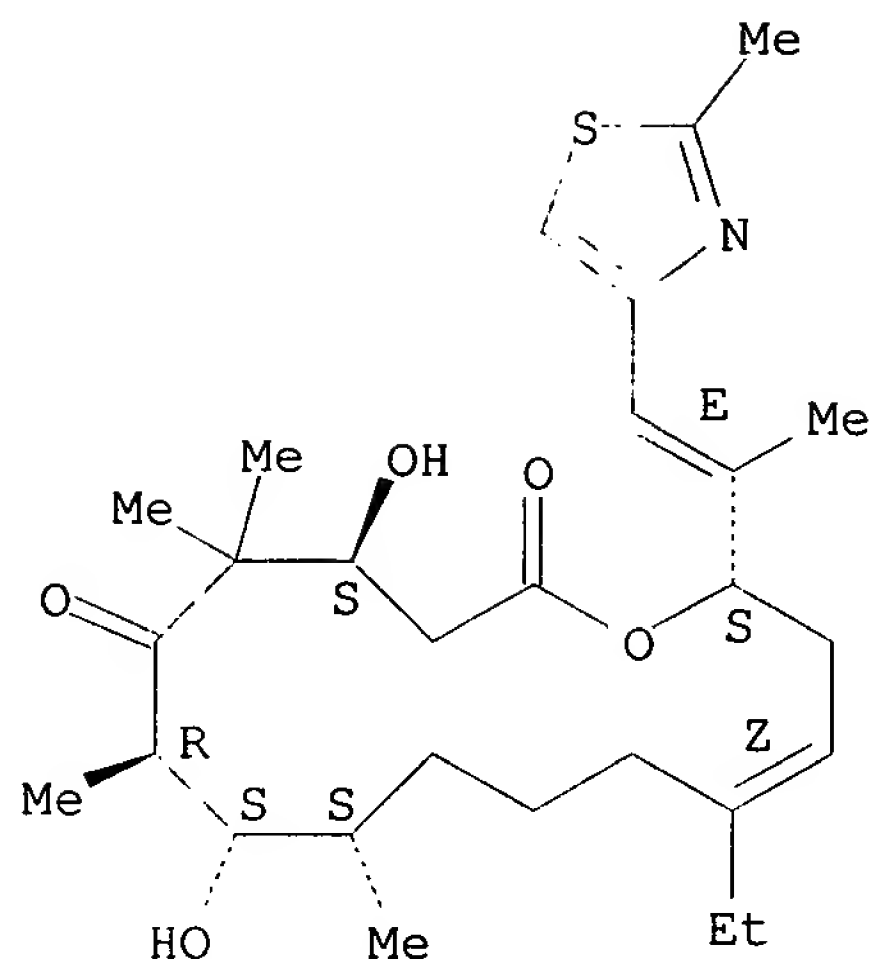
=> D BIB ABS HITSTR 16

L20 ANSWER 16 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1997:787450 CAPLUS
DN 128:101936
TI Total synthesis of 26-hydroxyepothilone B and related analogs
AU Nicolaou, K. C.; Ninkovic, Sacha; Finlay, M. Ray V.; Sarabia, Francisco;
Li, Tianhu
CS Department of Chemistry and Biochemistry, University of California,
California, 92093, USA
SO Chem. Commun. (Cambridge) (1997), (24), 2343-2344
CODEN: CHCOFS; ISSN: 1359-7345
PB Royal Society of Chemistry
DT Journal
LA English
OS CASREACT 128:101936
GI



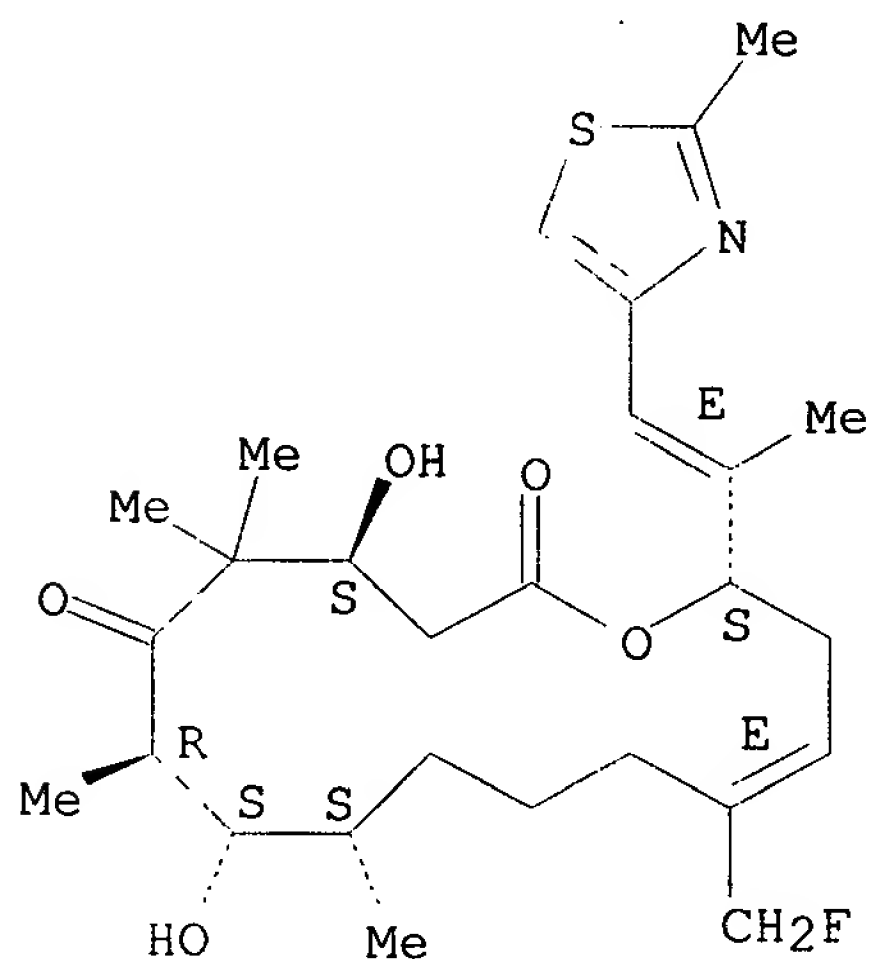
AB A series of 26-substituted epothilones B, e.g. I, were constructed by total synthesis involving a selective Wittig olefination, an aldol reaction and a macrolactonization as key steps.
IT 198475-04-6P 201136-91-6P 201136-97-2P
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant);
SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (total synthesis of 26-hydroxyepothilone B and related analogs)
RN 198475-04-6 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 13-ethyl-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



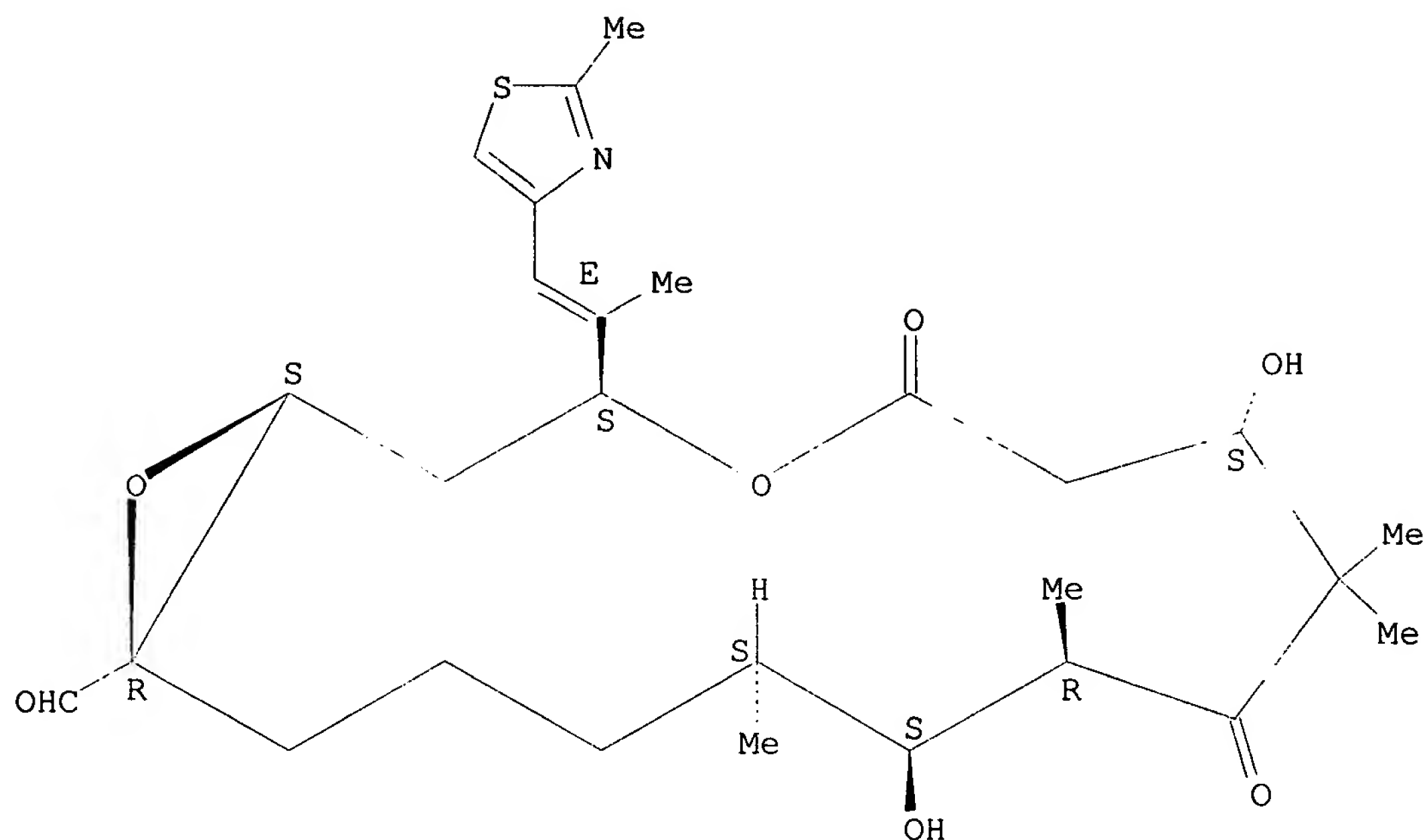
RN 201136-91-6 CAPLUS
 CN Oxacyclohexadec-13-ene-2,6-dione,
 13-(fluoromethyl)-4,8-dihydroxy-5,5,7,9-
 tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
 (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
 Double bond geometry as shown.



RN 201136-97-2 CAPLUS
 CN 4,17-Dioxabicyclo[14.1.0]heptadecane-16-carboxaldehyde,
 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
 thiazolyl)ethenyl]-5,9-dioxo-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA
 INDEX NAME)

Absolute stereochemistry. Rotation (-).
 Double bond geometry as shown.



IT 198475-08-0P 201136-88-1P 201136-92-7P

201137-00-0P 201137-02-2P 201137-03-3P

201137-04-4P

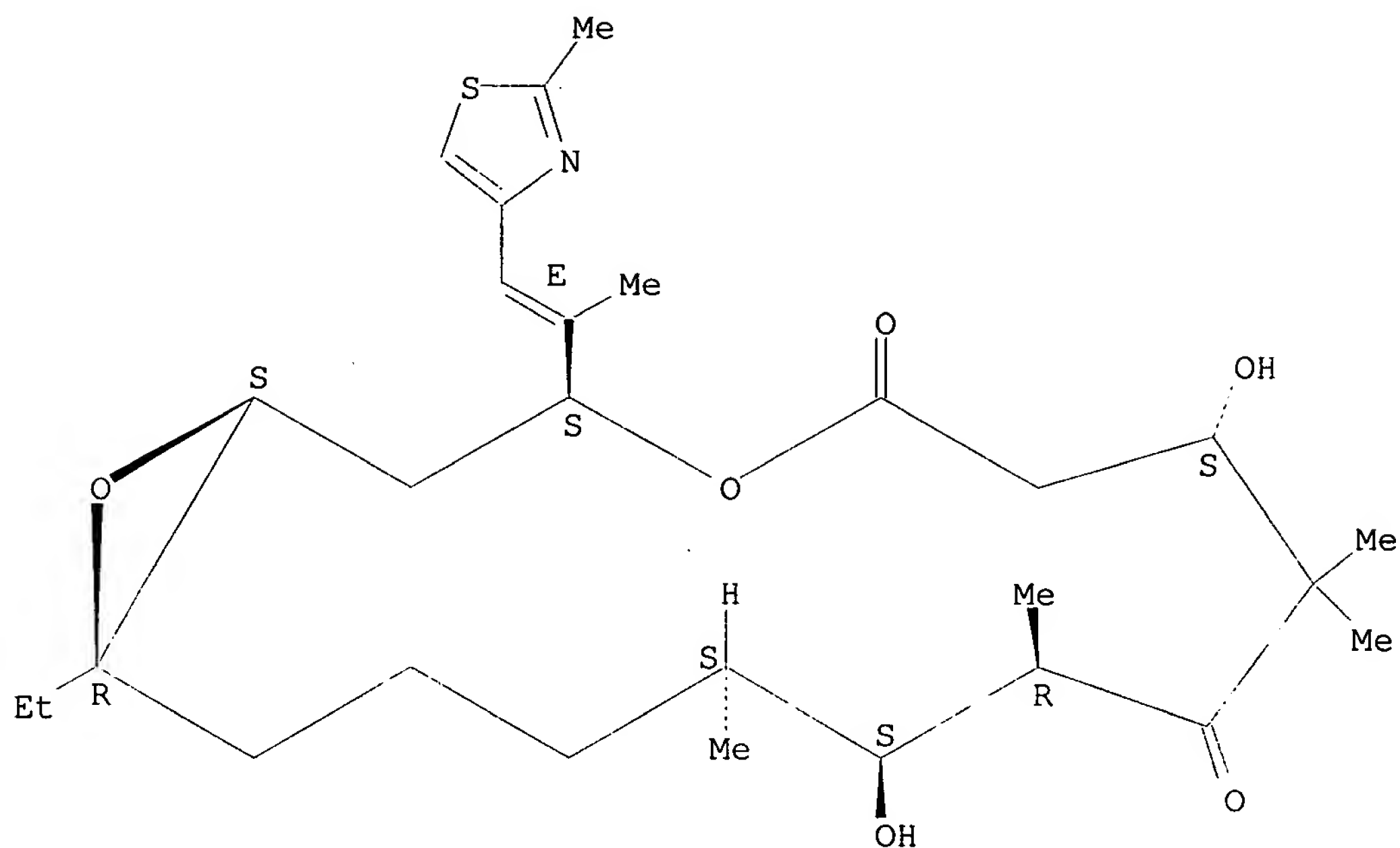
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(total synthesis of 26-hydroxyepothilone B and related analogs)

RN 198475-08-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-ethyl-7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

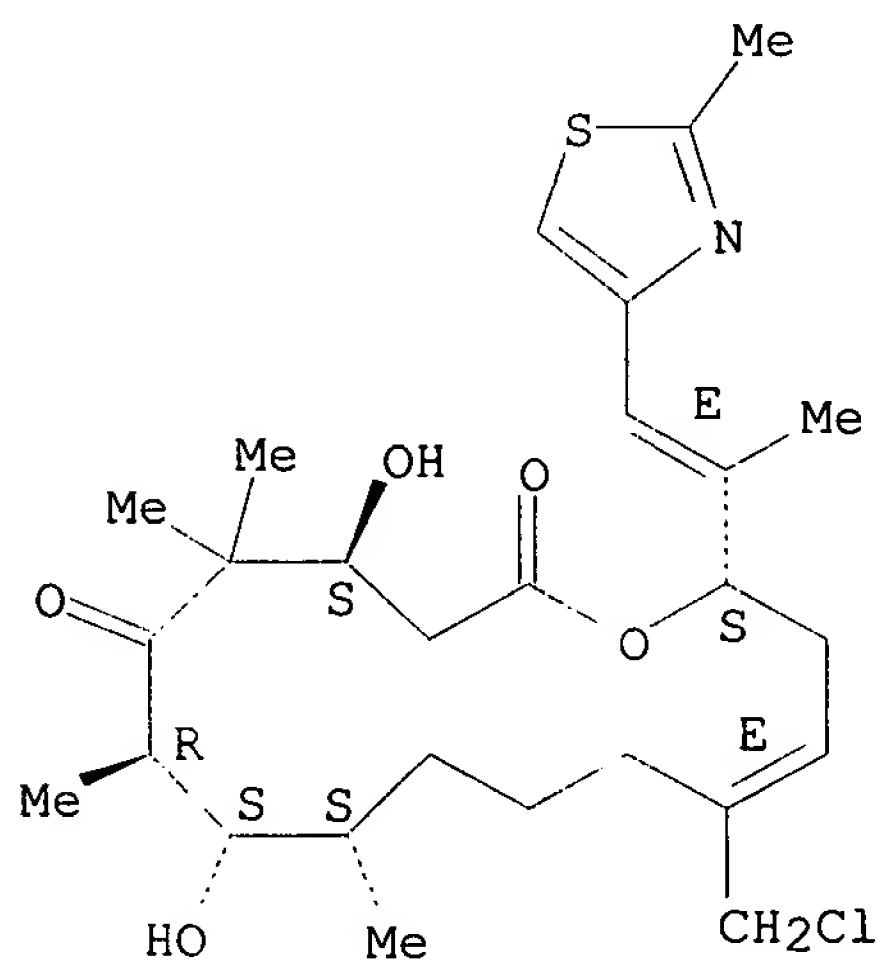
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-88-1 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
13-(chloromethyl)-4,8-dihydroxy-5,5,7,9-
tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

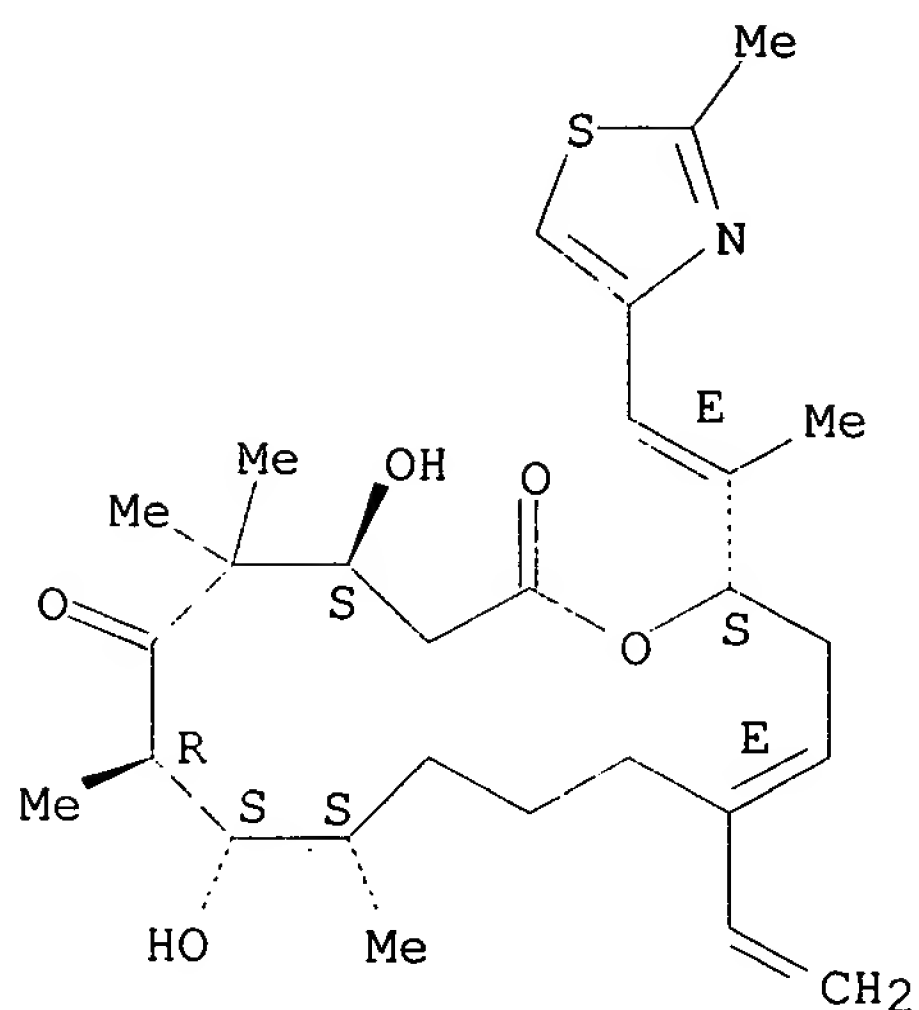


RN 201136-92-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-ethenyl-4,8-dihydroxy-5,5,7,9-
tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

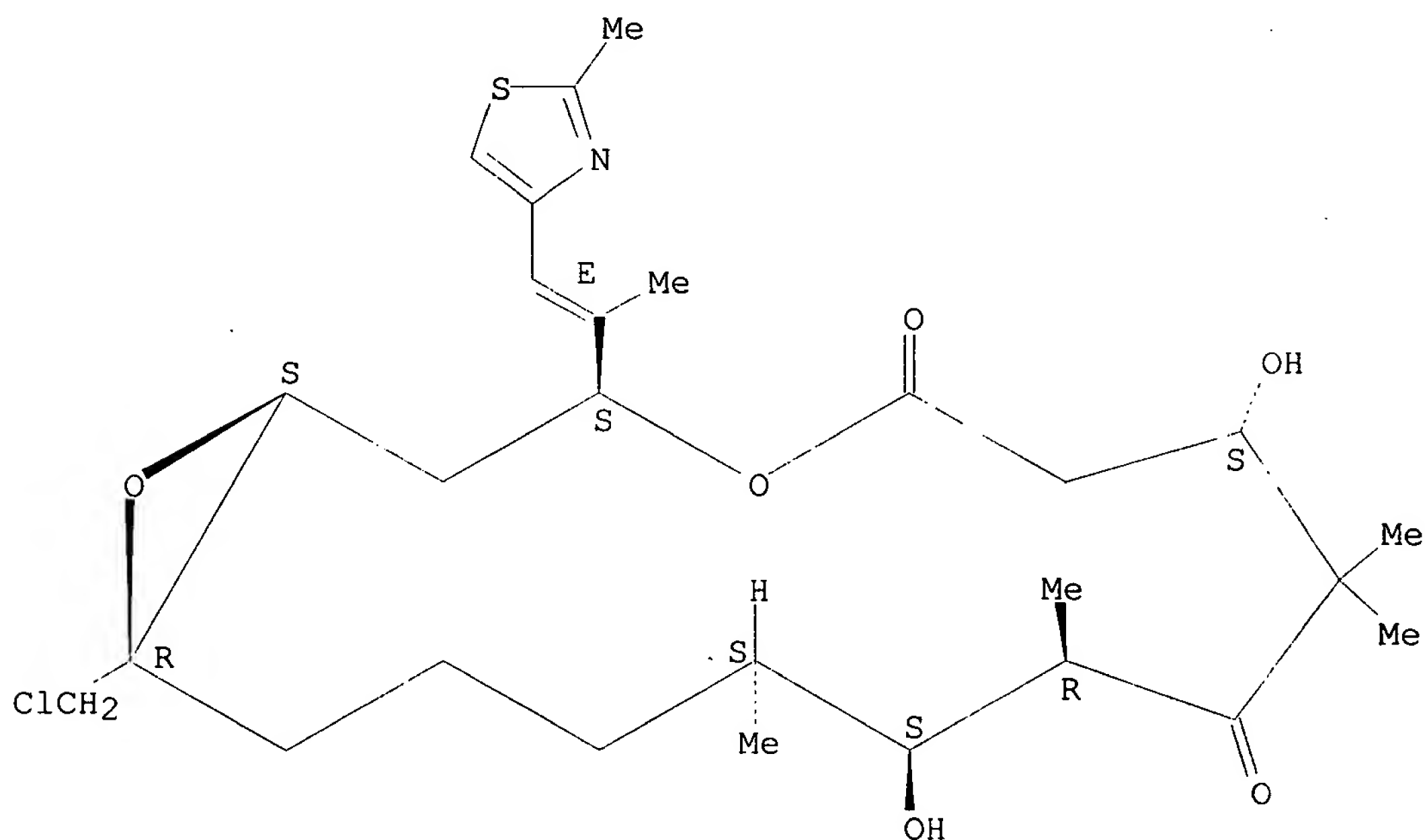


RN 201137-00-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-(chloromethyl)-7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

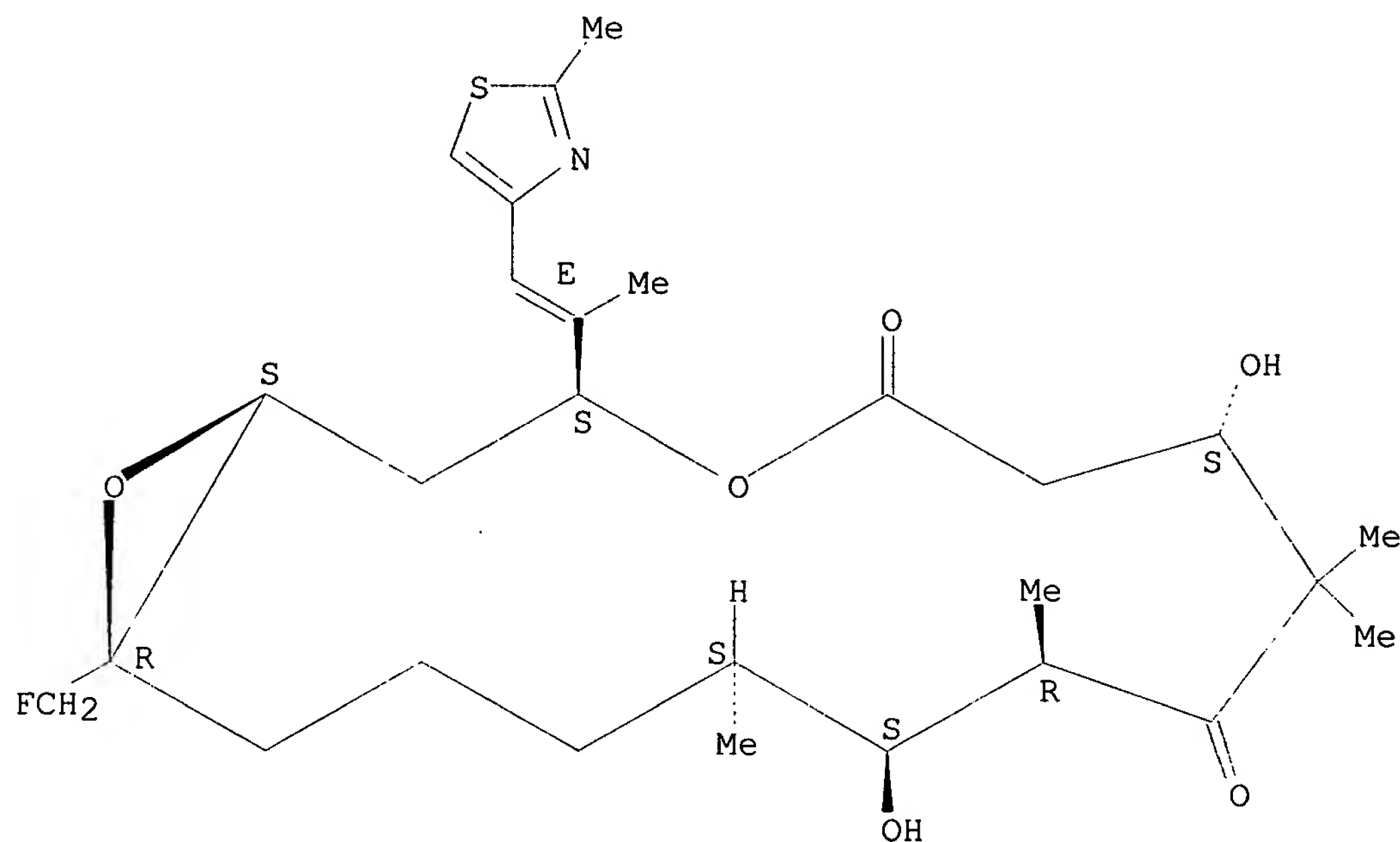
Double bond geometry as shown.



RN 201137-02-2 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-(fluoromethyl)-7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

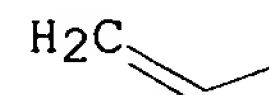
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



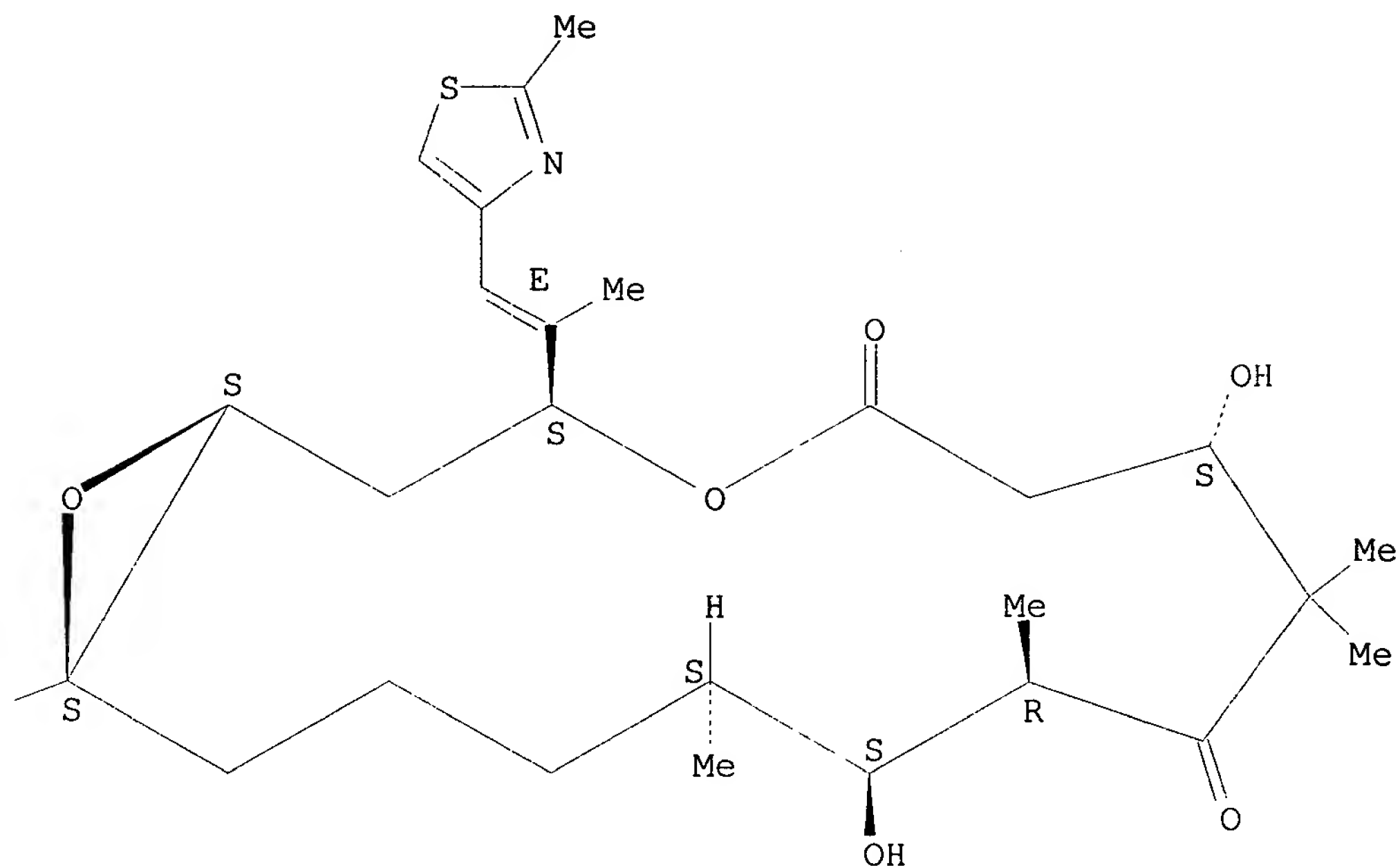
RN 201137-03-3 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione,
16-ethenyl-7,11-dihydroxy-
8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

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PAGE 1-B

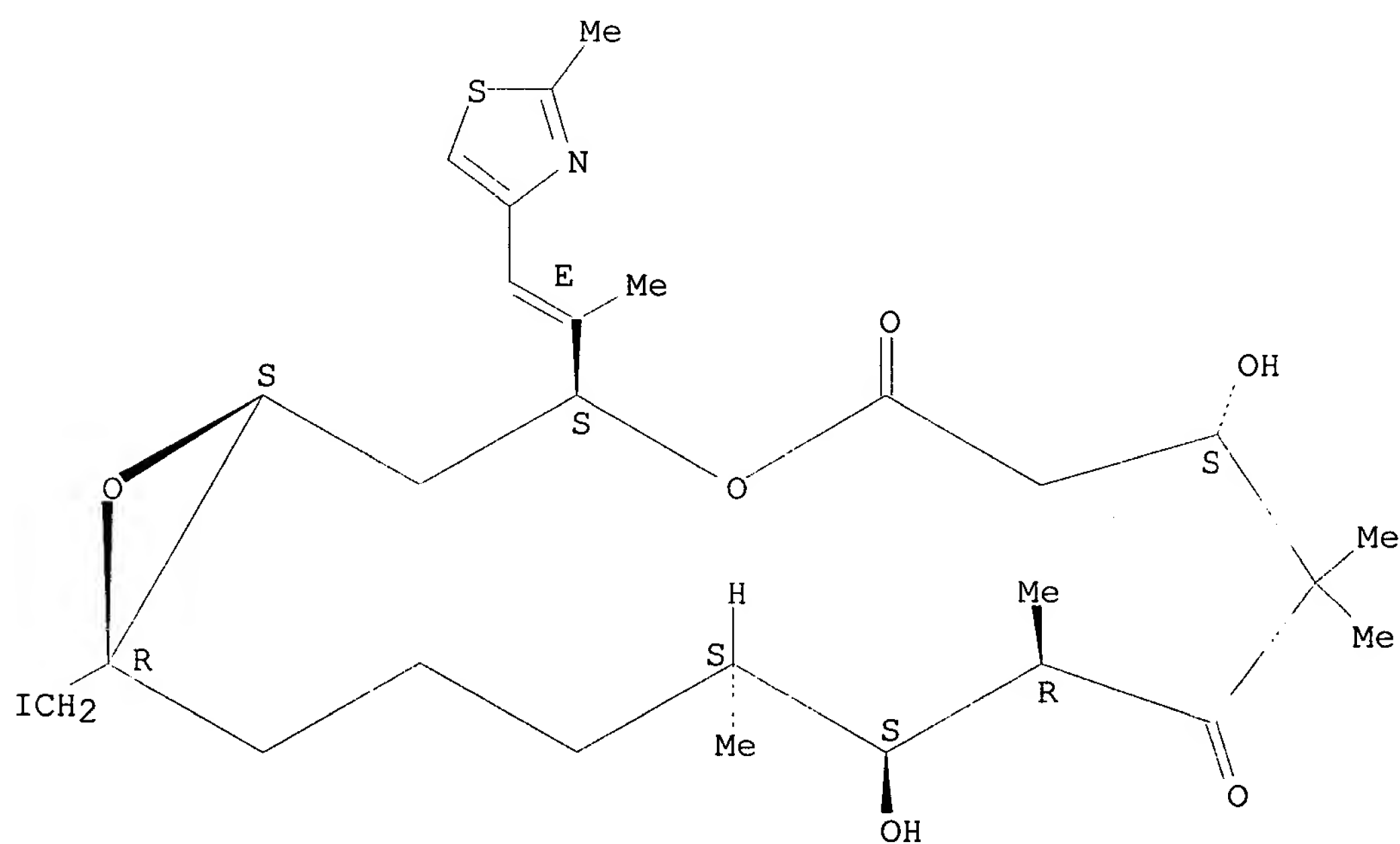


RN 201137-04-4 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-16-(iodomethyl)-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.



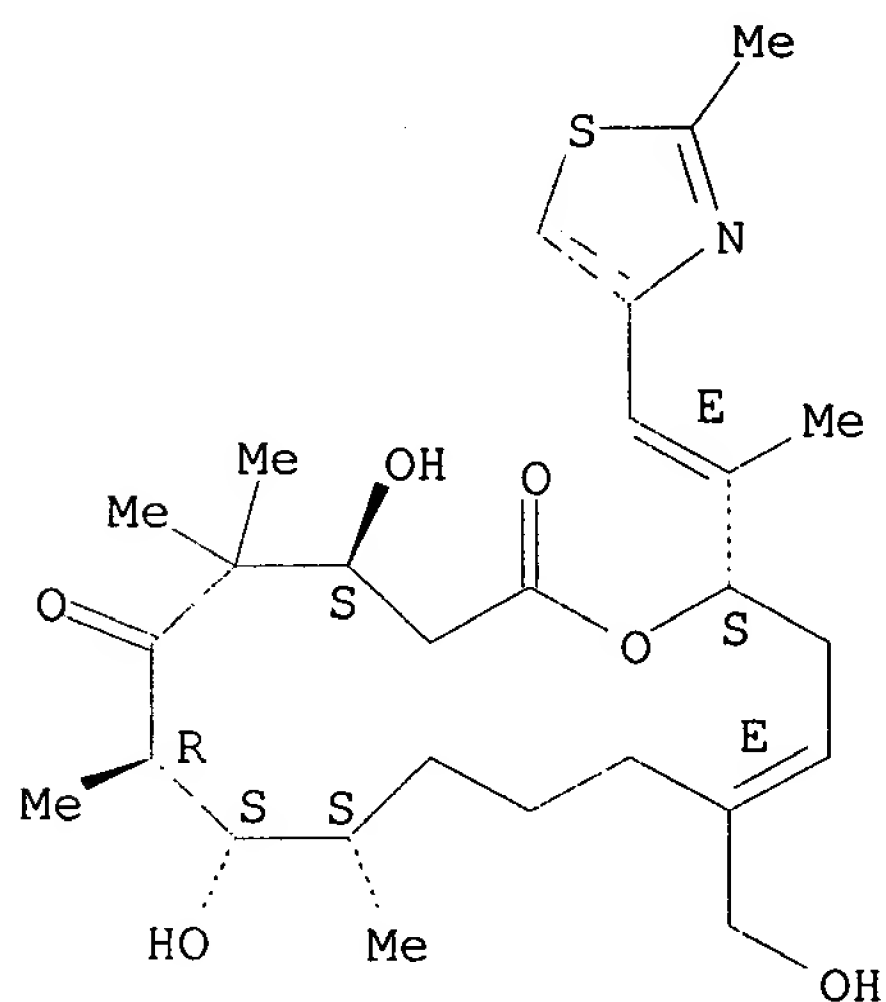
IT 201136-64-3P 201136-85-8P 201136-86-9P
201136-89-2P 201136-98-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(total synthesis of 26-hydroxyepothilone B and related analogs)

RN 201136-64-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-13-(hydroxymethyl)-5,5,7,9-
tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

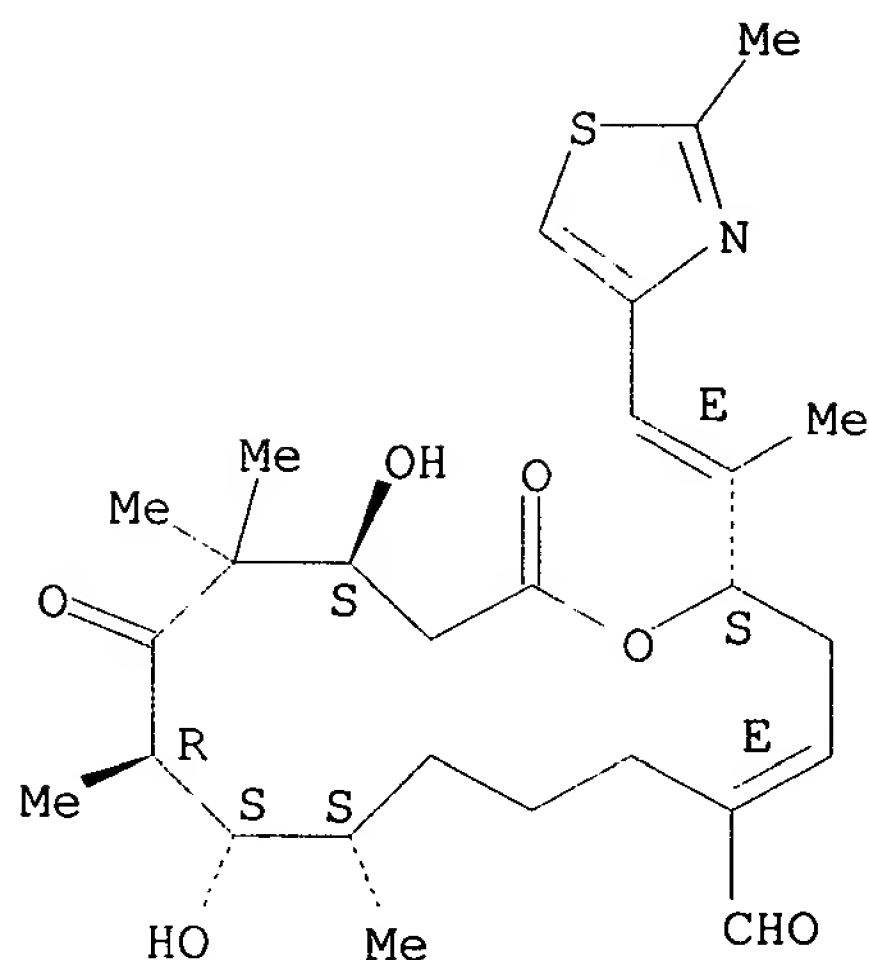
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-85-8 CAPLUS

CN Oxacyclohexadec-4-ene-5-carboxaldehyde, 10,14-dihydroxy-9,11,13,13-
tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12,16-dioxo-
, (2S,4E,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

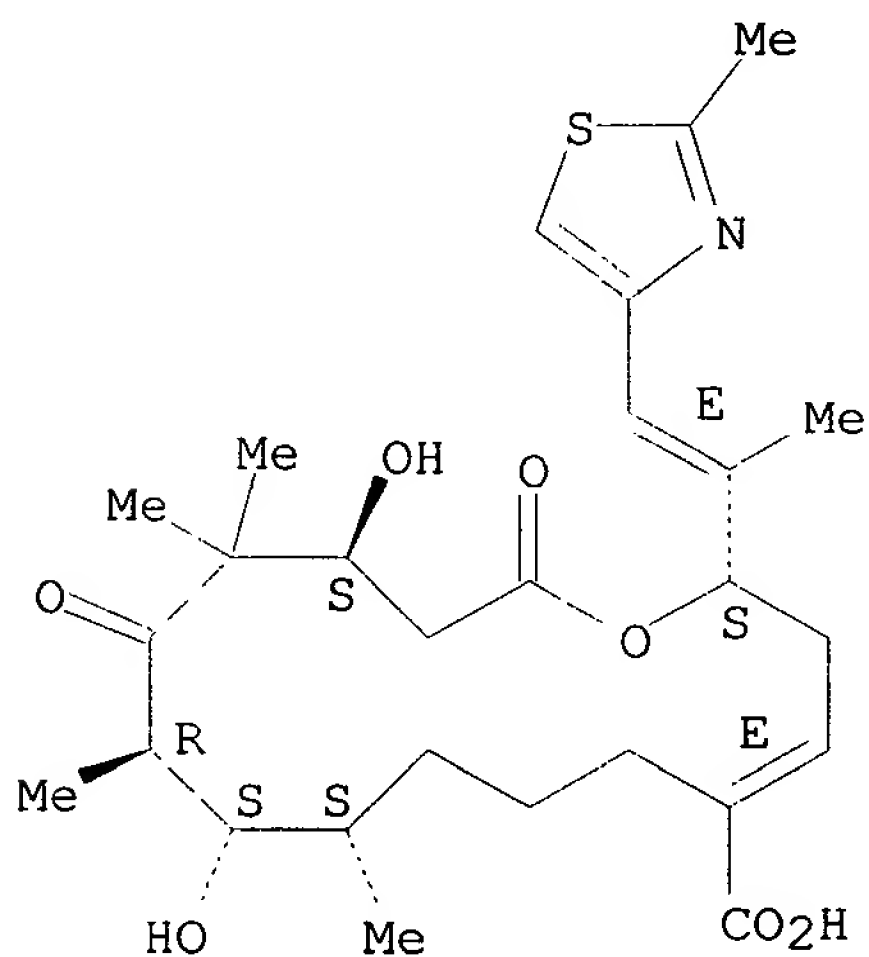
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-86-9 CAPLUS

CN Oxacyclohexadec-4-ene-5-carboxylic acid, 10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12,16-dioxo-, (2S,4E,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

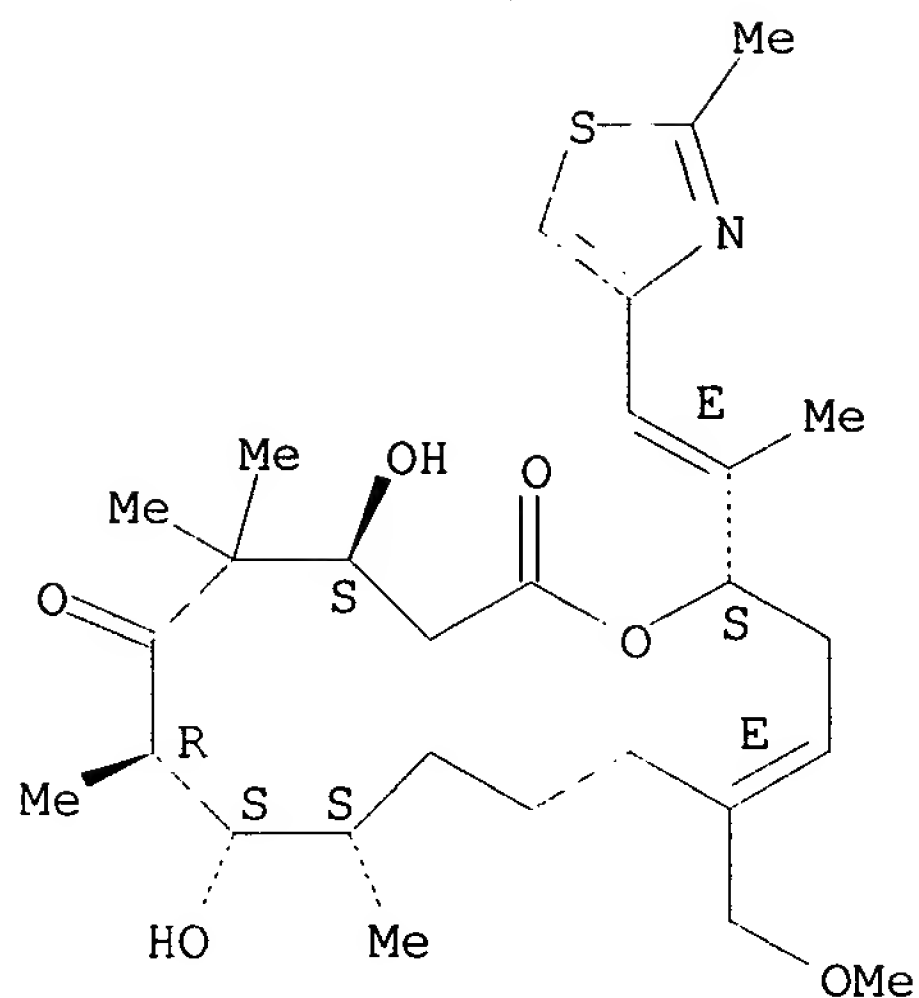
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-89-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-13-(methoxymethyl)-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

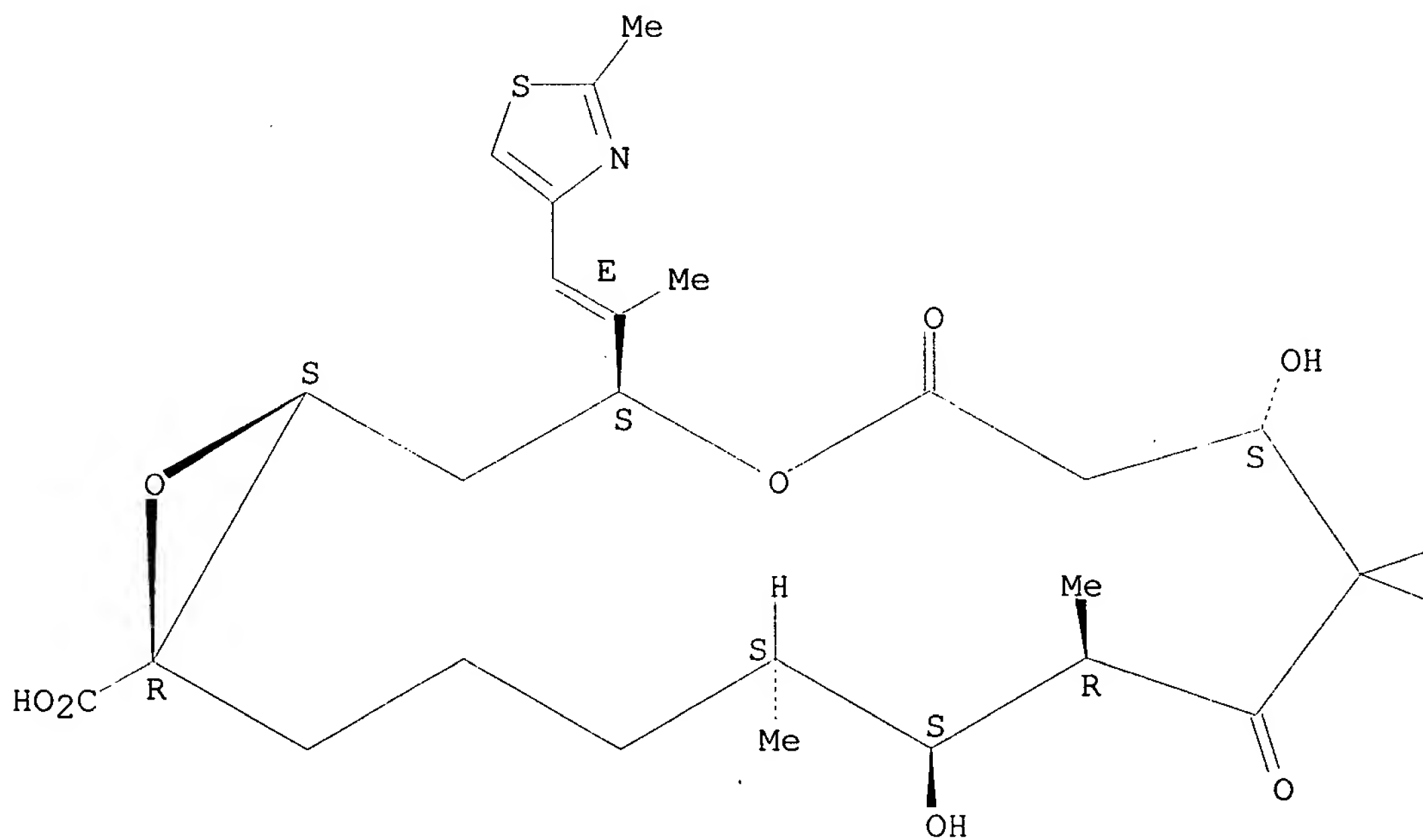


RN 201136-98-3 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-16-carboxylic acid,
7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-5,9-dioxo-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

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PAGE 1-B

— Me

— Me

IT 201136-80-3P 201136-81-4P 201136-82-5P
201136-83-6P 201136-84-7P 201136-87-0P
201136-90-5P 201136-93-8P 201136-94-9P
201136-95-0P 201136-96-1P 201136-99-4P
201137-01-1P

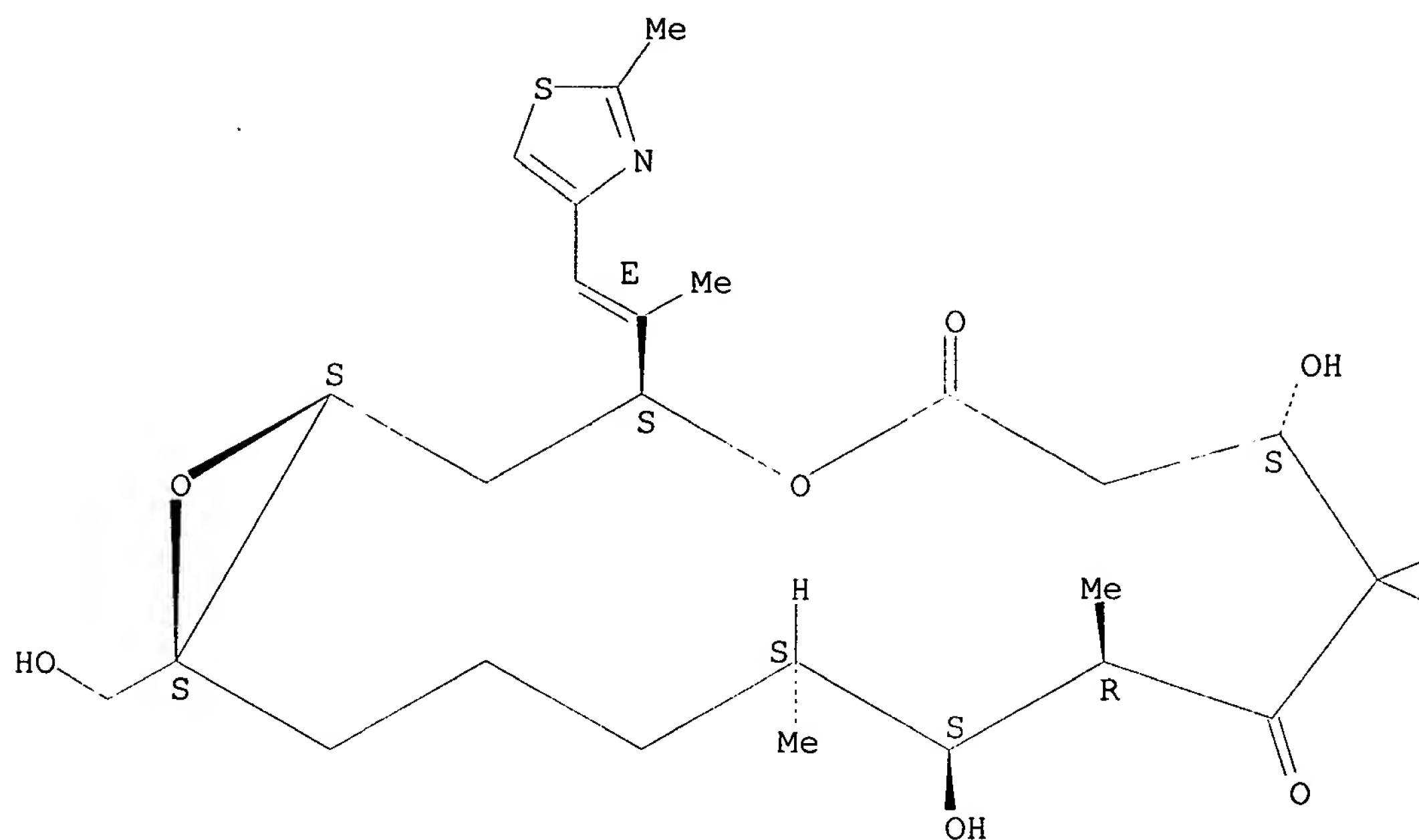
RL: SPN (Synthetic preparation); PREP (Preparation)
(total synthesis of 26-hydroxyepothilone B and related analogs)

RN 201136-80-3 CAPLUS

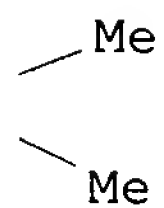
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-16-
(hydroxymethyl)-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-A

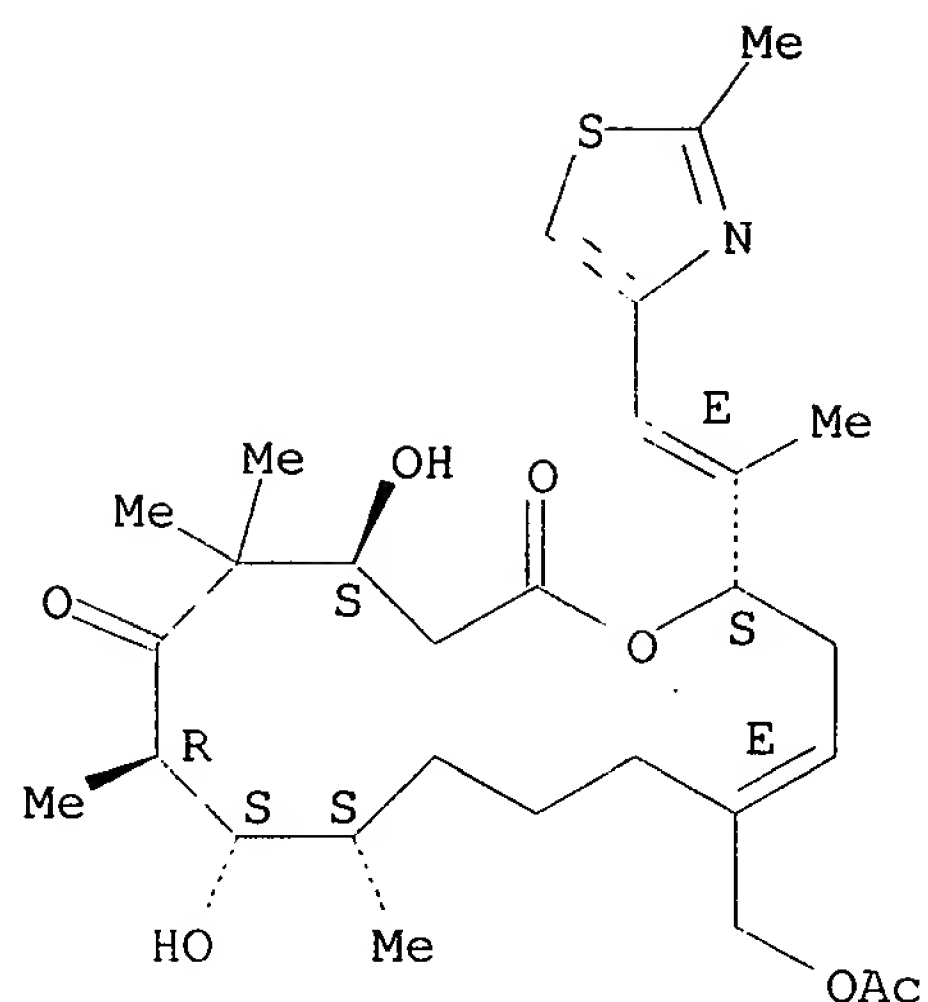


PAGE 1-B



RN 201136-81-4 CAPLUS
 CN Oxacyclohexadec-13-ene-2,6-dione, 13-[(acetyloxy)methyl]-4,8-dihydroxy-
 5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
 (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
 Double bond geometry as shown.

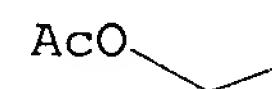


RN 201136-82-5 CAPLUS

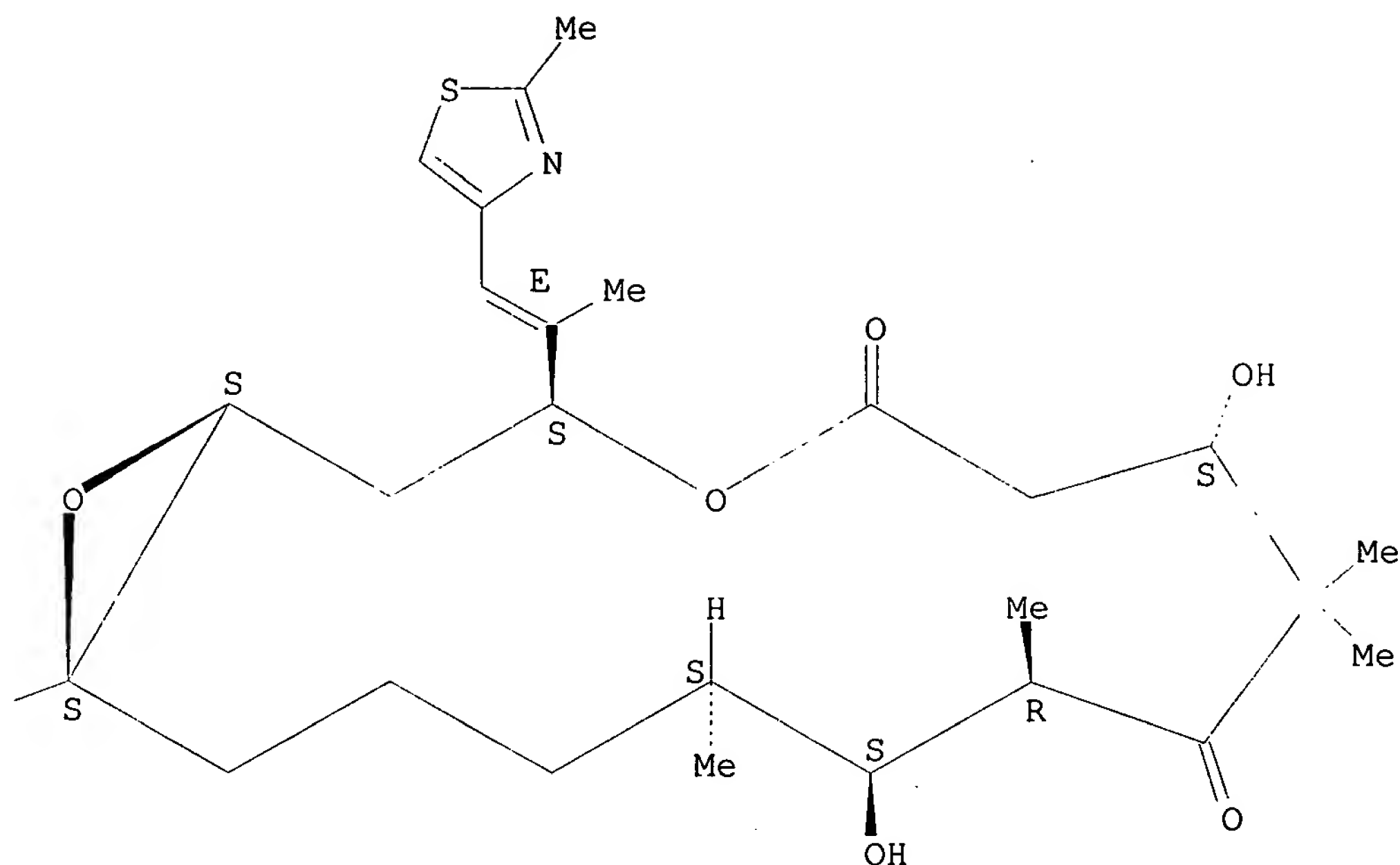
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-[(acetyloxy)methyl]-
7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-A



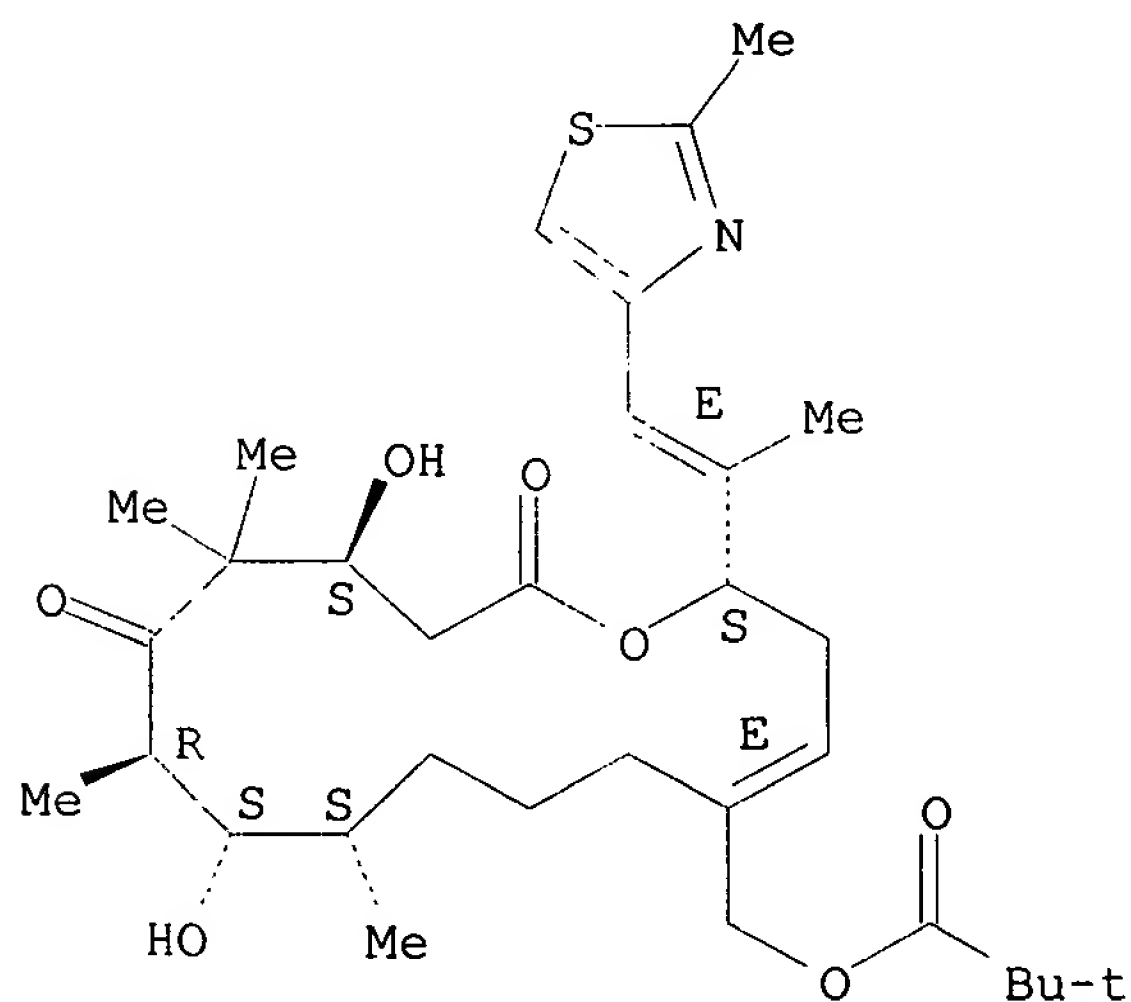
PAGE 1-B



RN 201136-83-6 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, [(2S,4E,9S,10S,11R,14S)-10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12,16-dioxooxacyclohexadec-4-en-5-yl]methyl ester (9CI) (CA INDEX NAME)

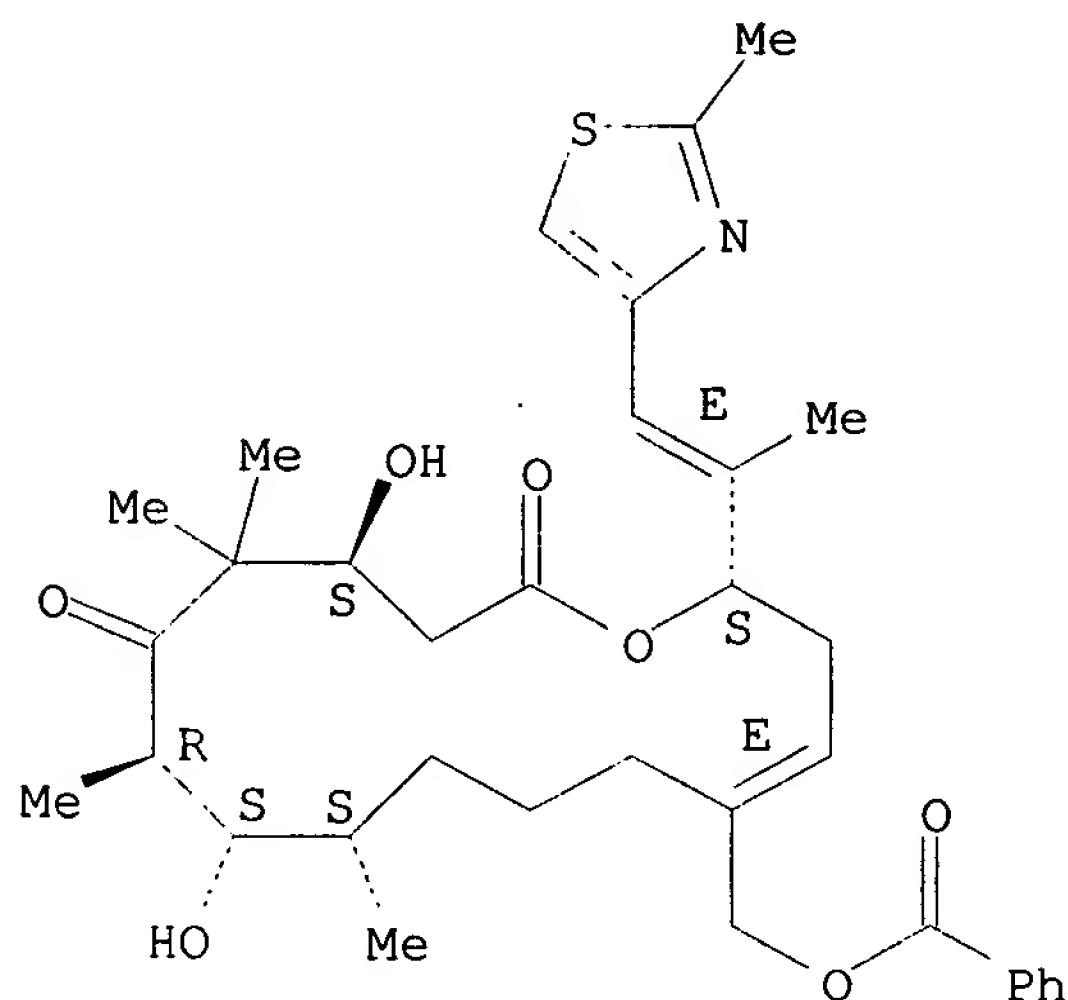
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-84-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-[(benzoyloxy)methyl]-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

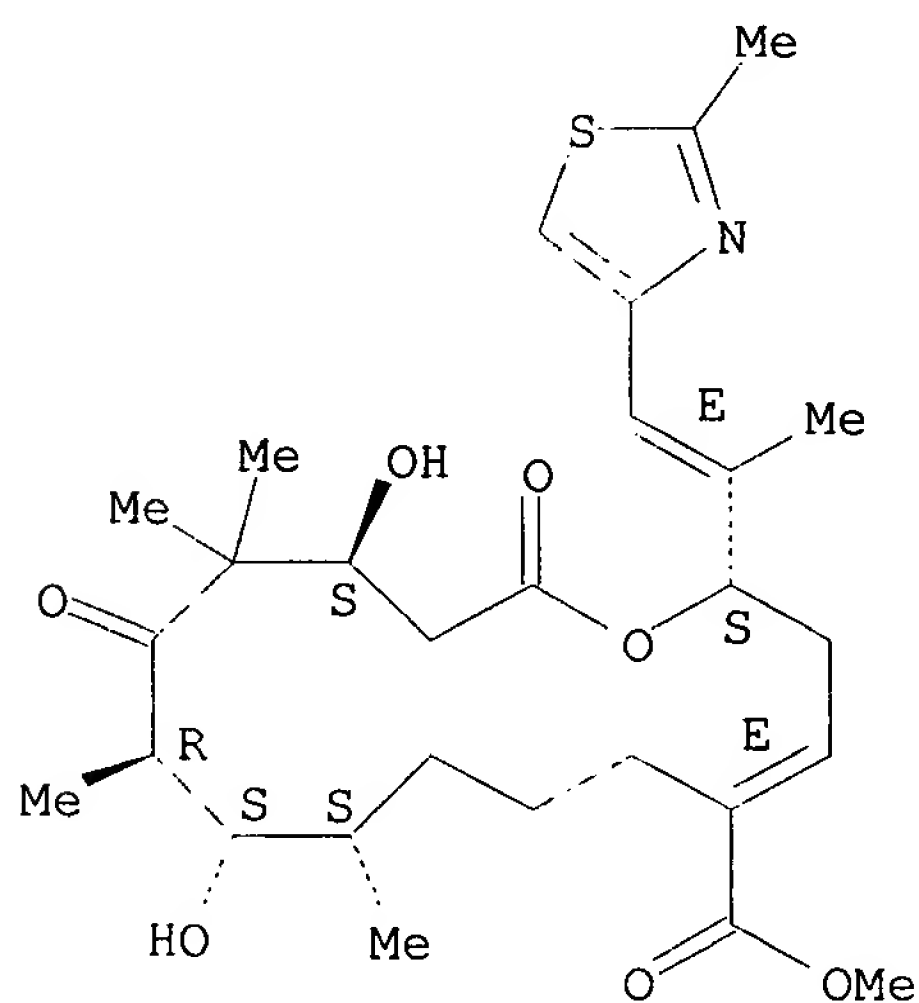
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-87-0 CAPLUS

CN Oxacyclohexadec-4-ene-5-carboxylic acid, 10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12,16-dioxo-, methyl ester, (2S,4E,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

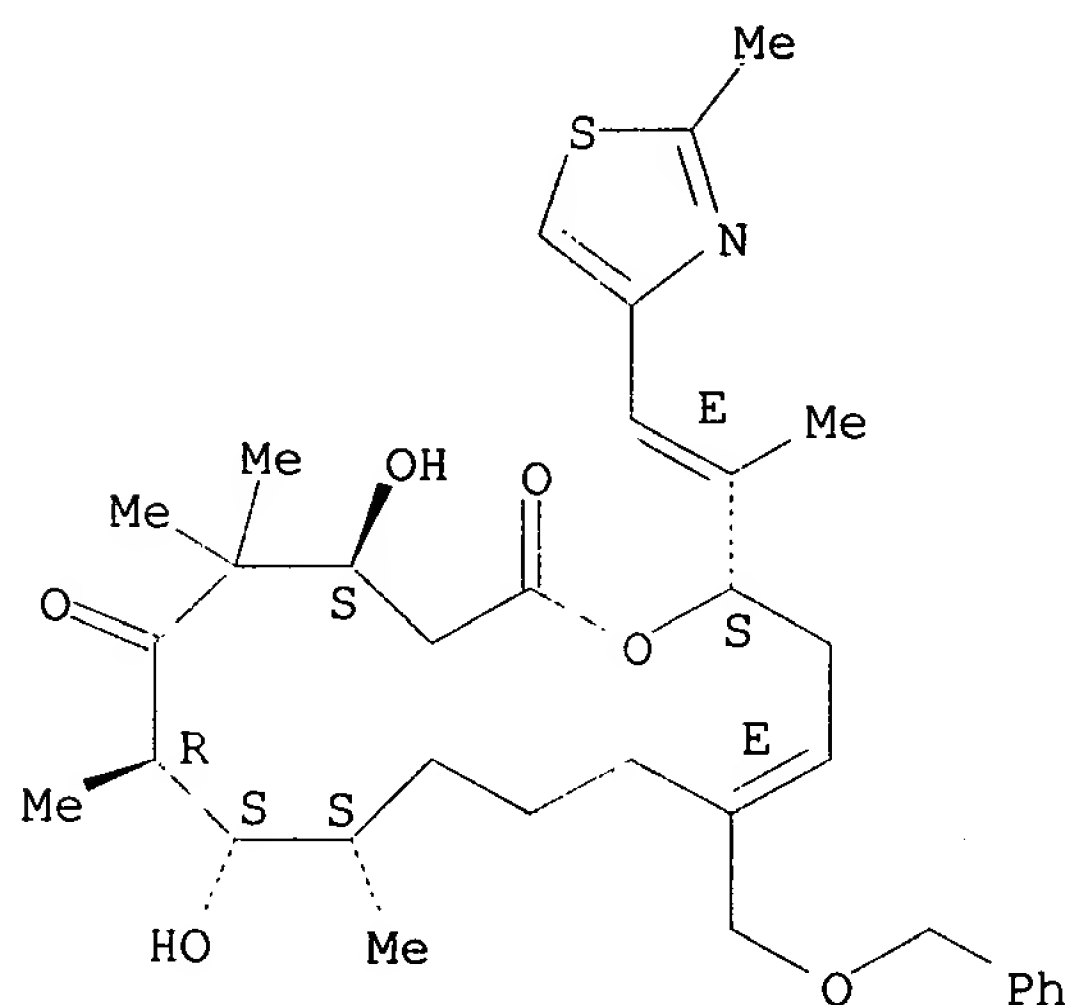
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-90-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-[(phenylmethoxy)methyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

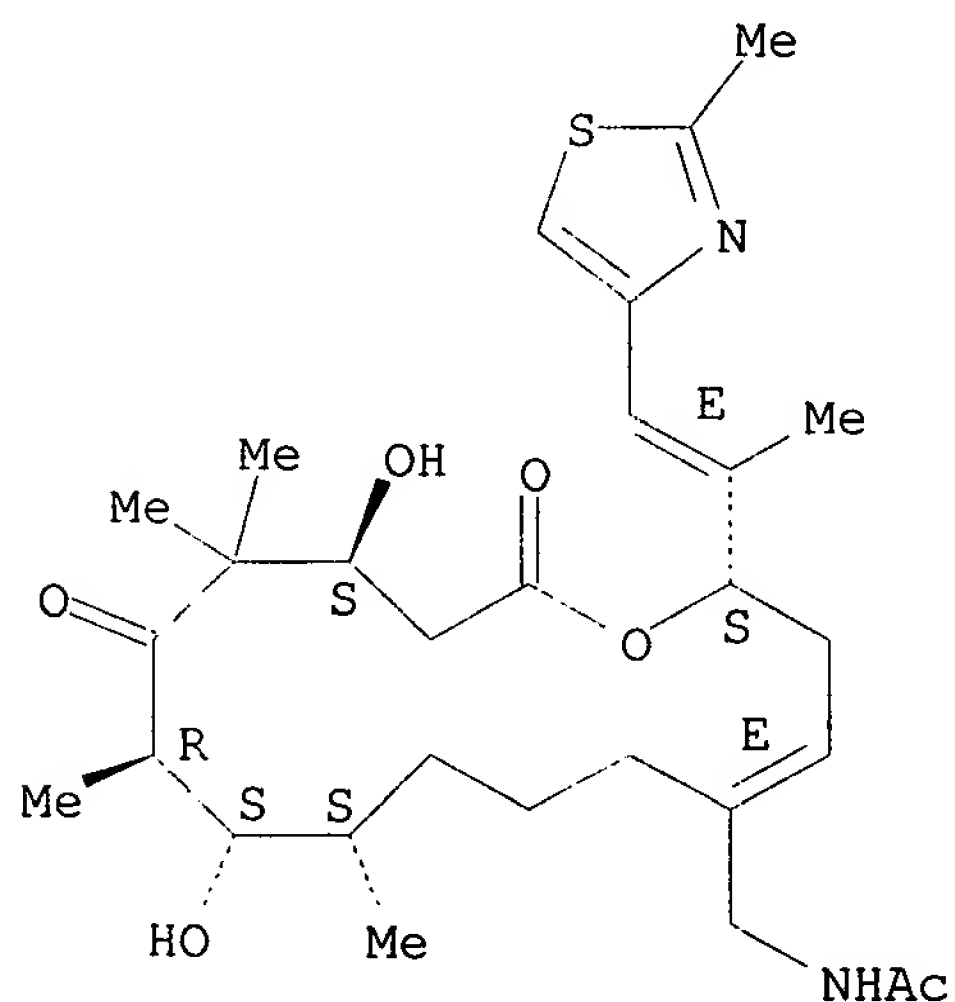
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 201136-93-8 CAPLUS

CN Acetamide, N-[[[(2S,4E,9S,10S,11R,14S)-10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-12,16-dioxooxacyclohexadec-4-en-5-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

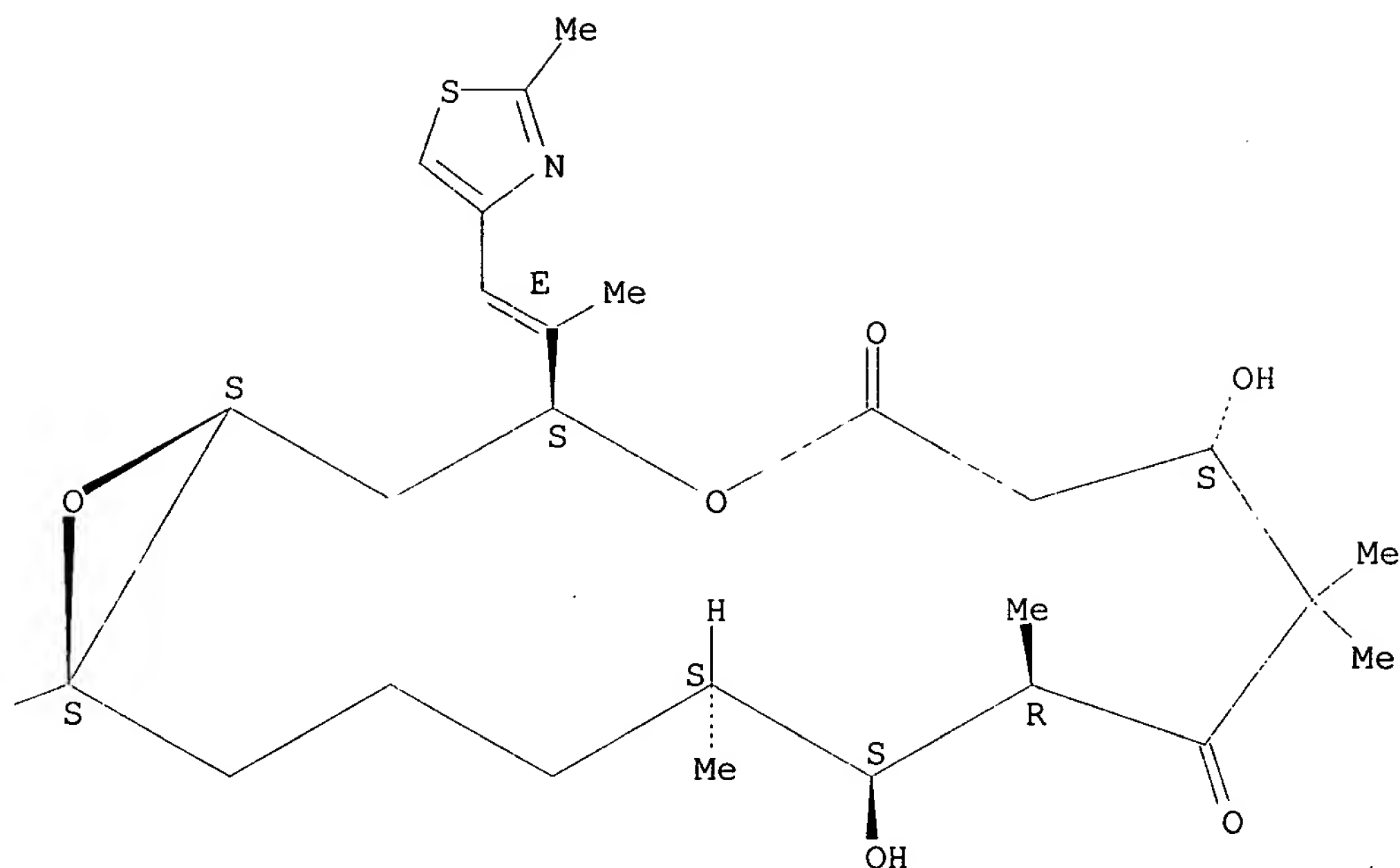


RN 201136-94-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-ethynyl-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-B

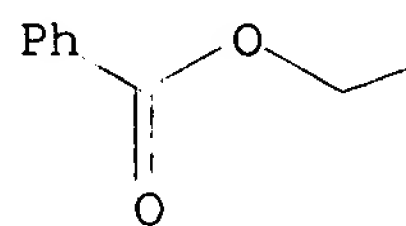


RN 201136-96-1 CAPLUS

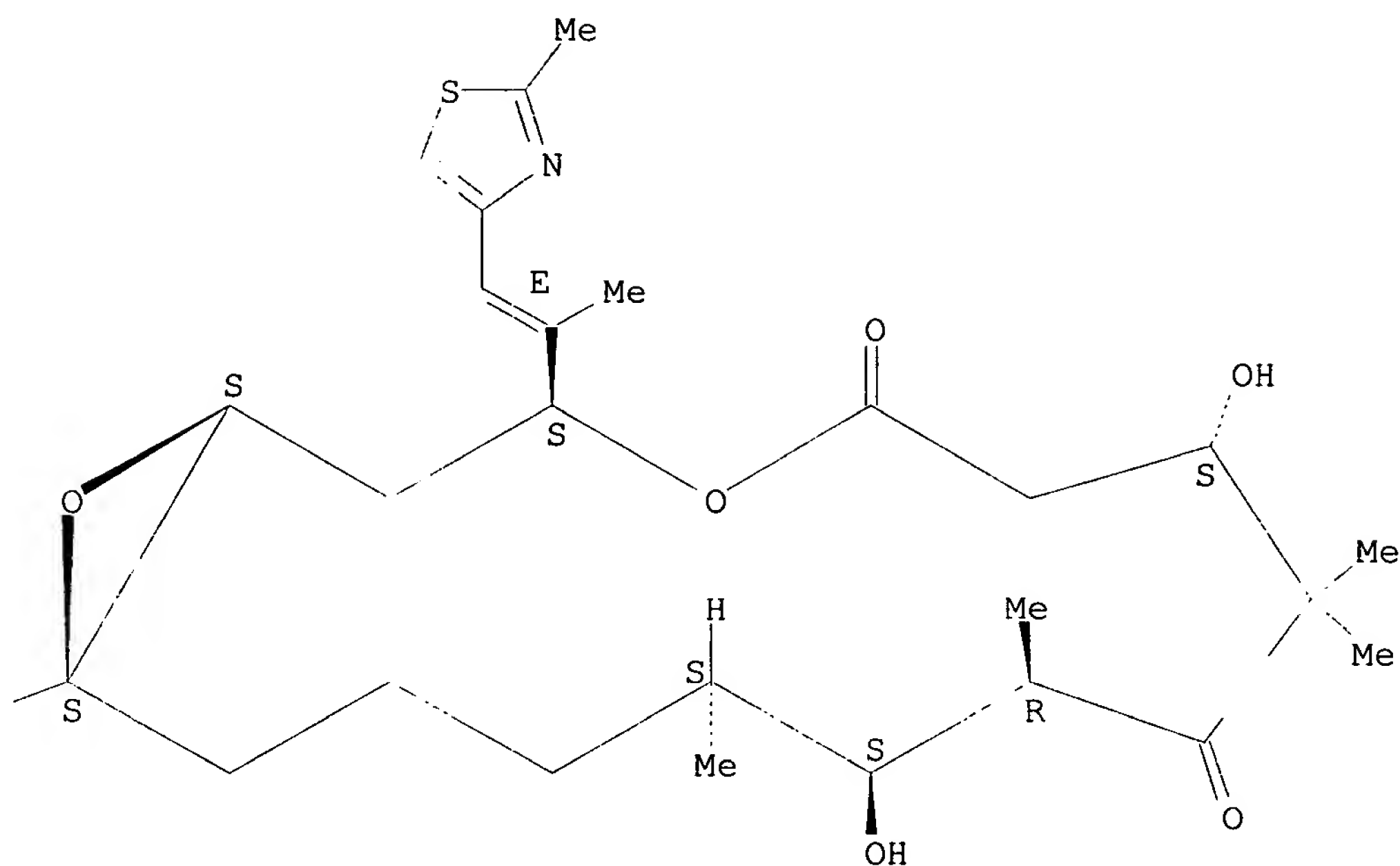
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-[(benzoyloxy)methyl]-
7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-A



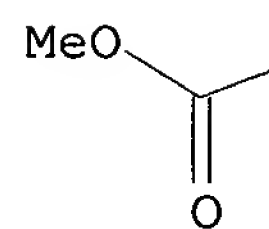
PAGE 1-B



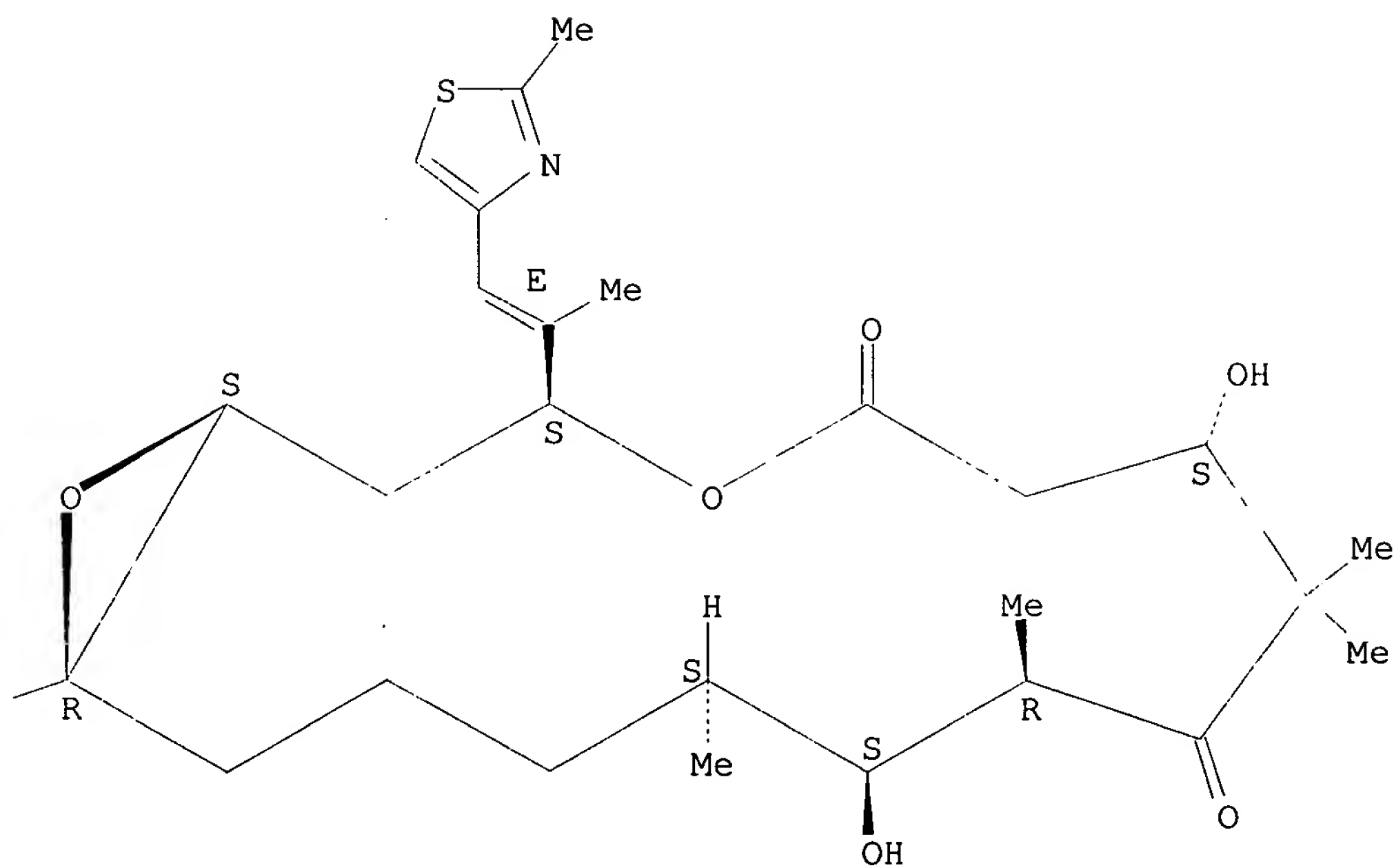
RN 201136-99-4 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-16-carboxylic acid,
7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-5,9-dioxo-, methyl ester, (1S,3S,7S,10R,11S,12S,16R)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

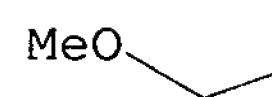


RN 201137-01-1 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-16-(methoxymethyl)-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, [1S-[1R*,3R*(E),7R*,10S*,11R*,12R*,16R*]]- (9CI)
(CA

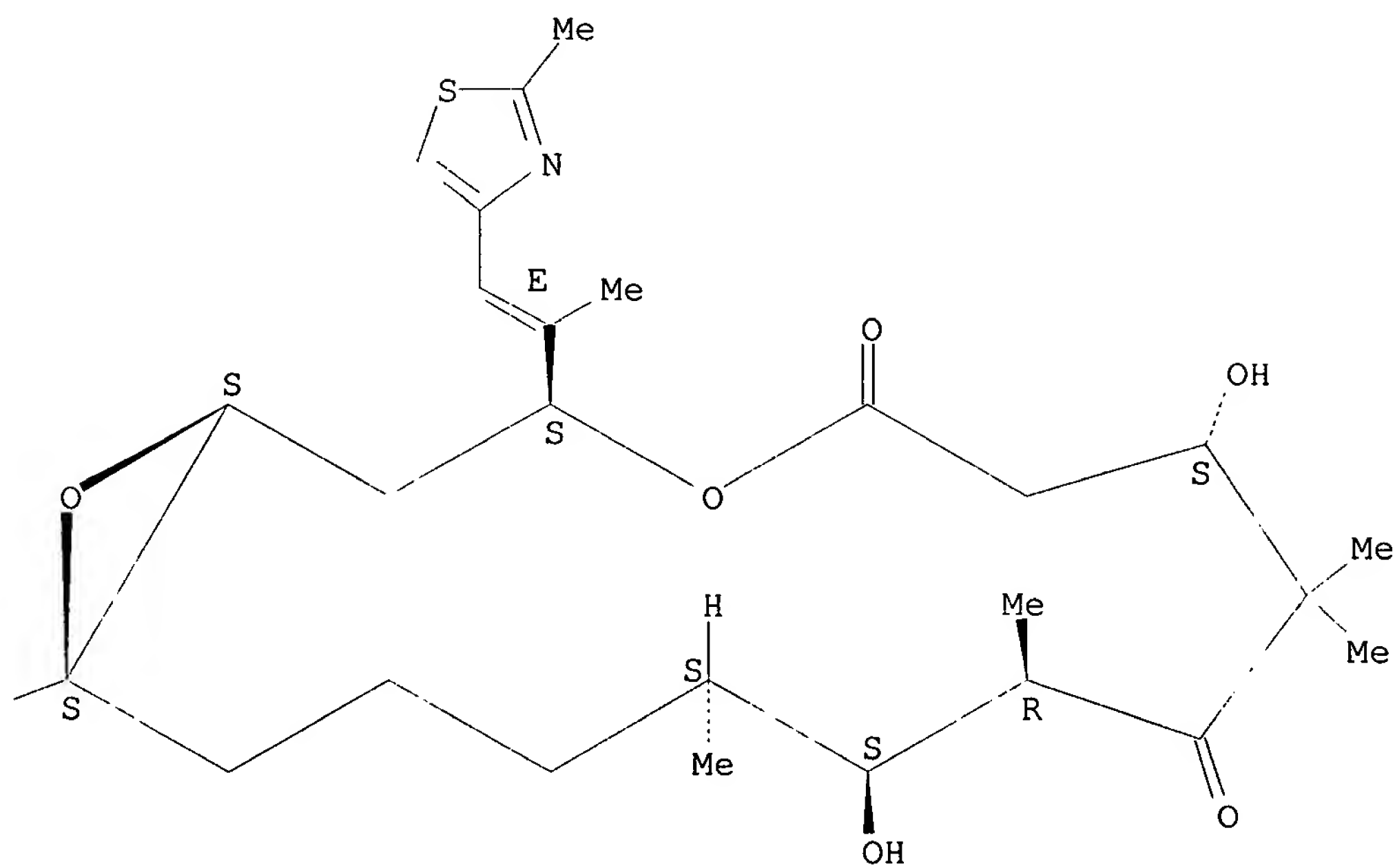
INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



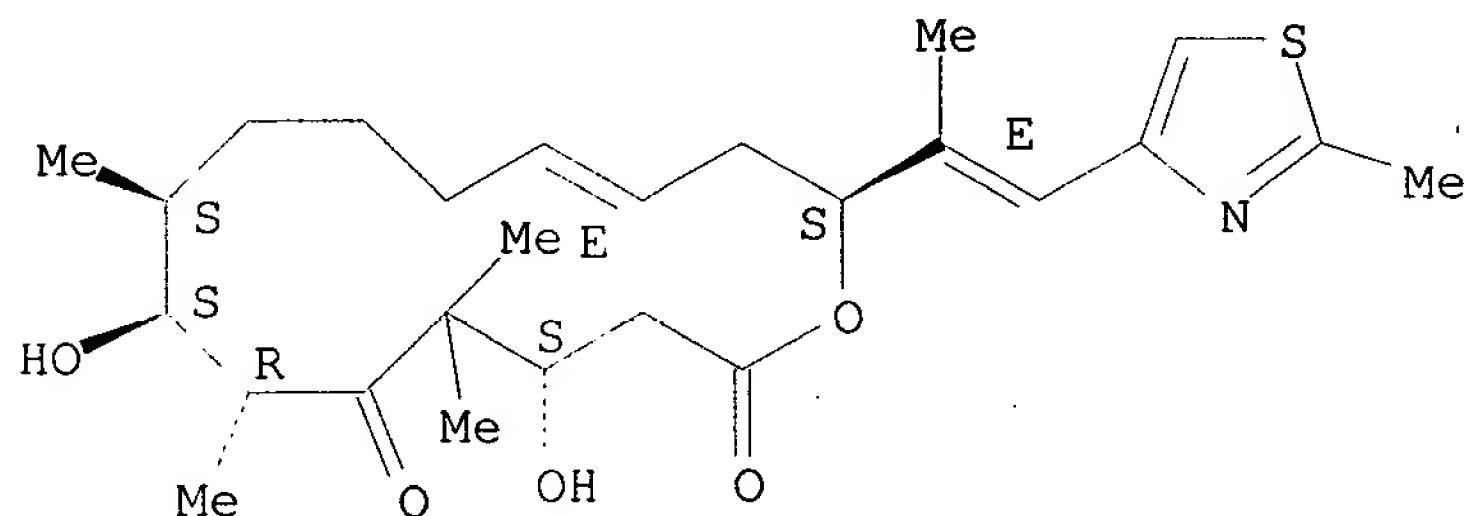
PAGE 1-B



=> D BIB ABS HITSTR 17

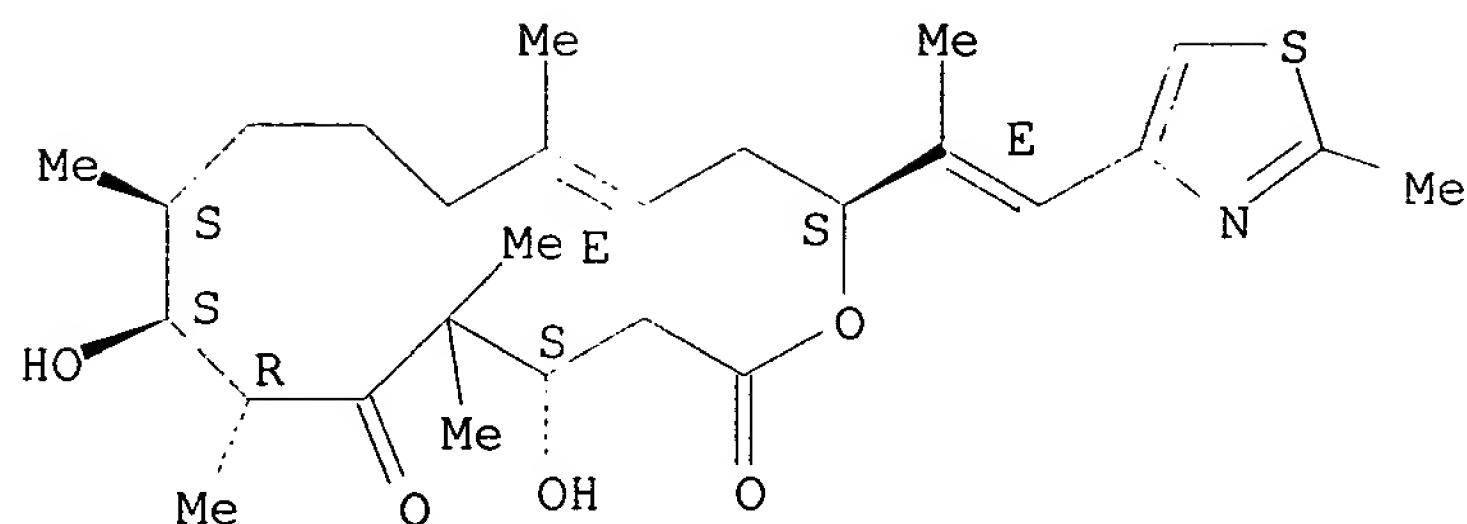
L20 ANSWER 17 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1997:724919 CAPLUS
DN 127:346221
TI Synthesis of epothilones A and B in solid and solution phase. [Erratum to document cited in CA127:4950]
AU Nicolaou, K. C.; Winssinger, N.; Pastor, J.; Ninkovic, S.; Sarabia, F.; He, Y.; Vourloumis, D.; Yang, Z.; Li, T.; Giannakakou, P.; Hamel, E.
CS Dep. Chemistry, Skaggs Inst. Chem. Biology, Scripps Res. Inst., La Jolla, CA, 92037, USA
SO Nature (London) (1997), 390(6655), 100
CODEN: NATUAS; ISSN: 0028-0836
PB Macmillan Magazines
DT Journal
LA English
AB Ref. 19, includes, in addn. to a total synthesis of epothilone B, biol. data for compd. 23 and other congeners similar to the reported in the Letter.
IT **188260-10-8P 189453-40-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of a combinatorial library via solid-phase synthesis of epothilone A and soln.-phase synthesis of epothilone B (Erratum))
RN 188260-10-8 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 189453-40-5 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



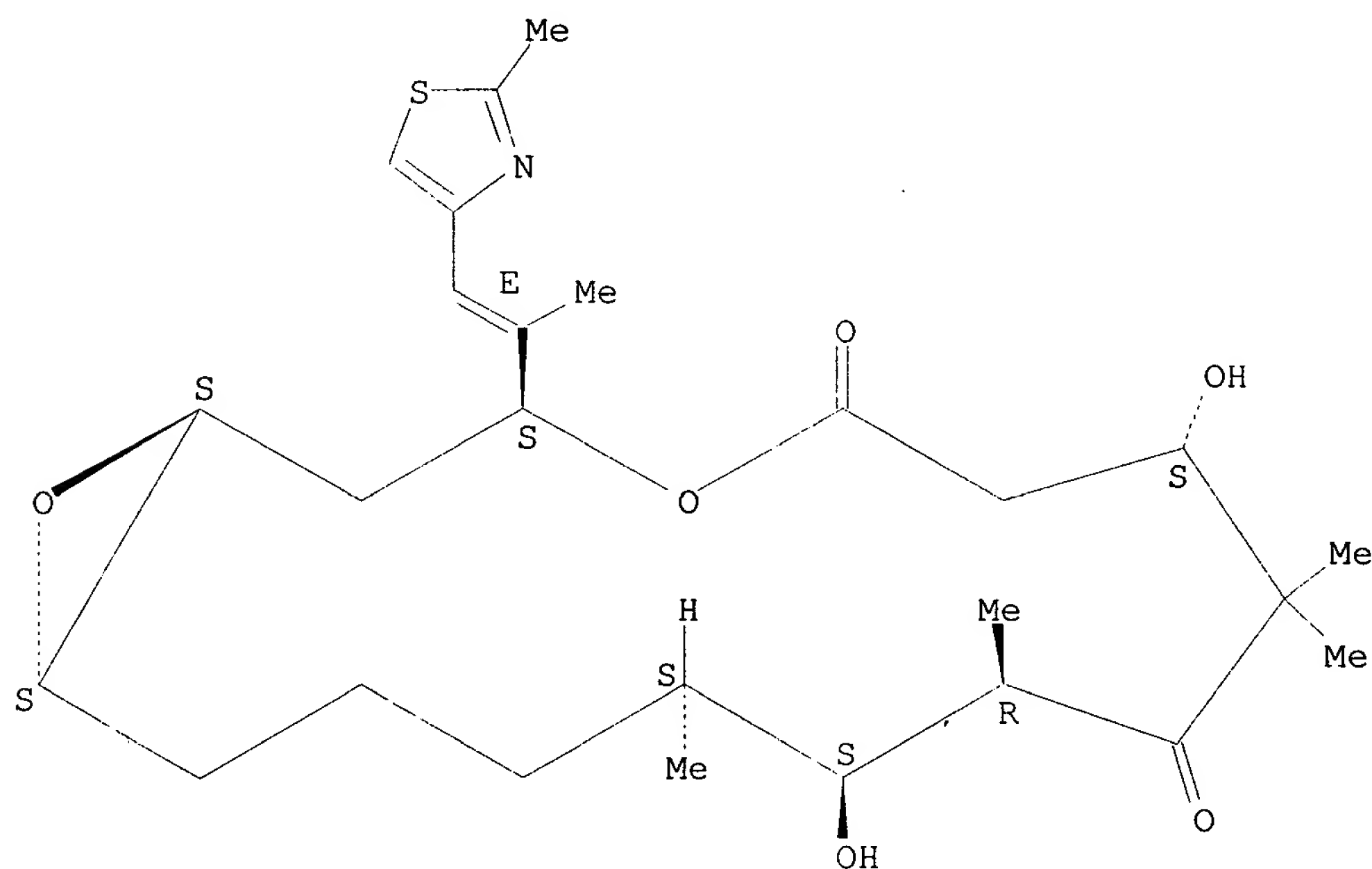
IT 190369-91-6P 190370-10-6P 190370-11-7P
190370-13-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of a combinatorial library via solid-phase synthesis of
epothilone A and soln.-phase synthesis of epothilone B (Erratum))

RN 190369-91-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-
tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 190370-10-6 CAPLUS

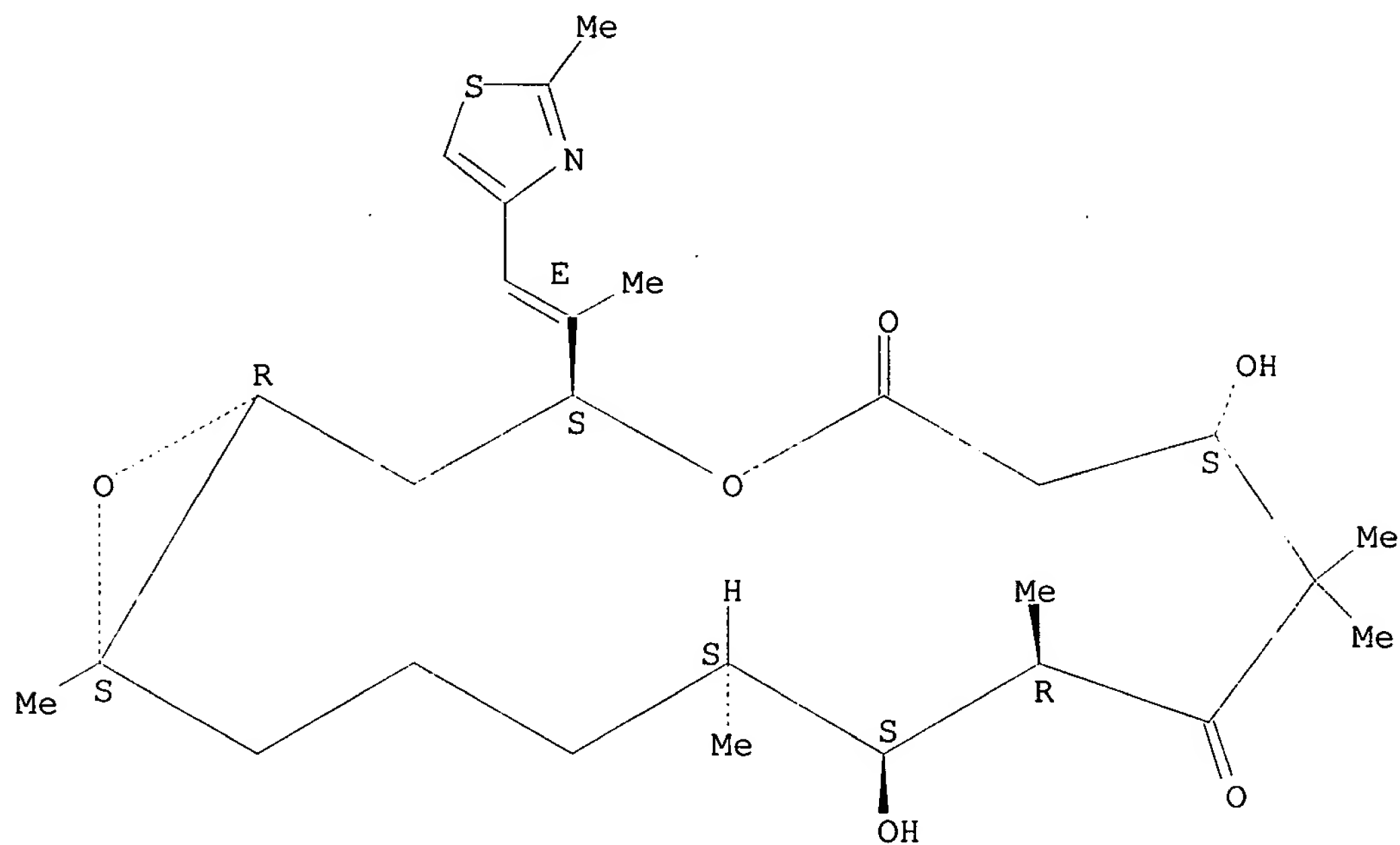
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
, (1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-
8,8',10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
[1R-[1R*,3S*(E),7S*,10R*,11S*,12S*,16S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



=> D BIB ABS HITSTR 18

L28 ANSWER 18 OF 28 CAPLUS COPYRIGHT 1999 ACS

AN 1997:714315 CAPLUS

DN 128:3560

TI Designed epothilones: combinatorial synthesis, tubulin assembly properties, and cytotoxic action against taxol-resistant tumor cells

AU Nicolaou, K. C.; Vourloumis, Dionisios; Li, Tianhu; Pastor, Joaquin; Winssinger, Nicolas; He, Yun; Ninkovic, Sacha; Sarabia, Francisco; Vallberg, Hans; Roschangar, Frank; King, N. Paul; Finlay, M. Ray V.; Giannakakou, Pareskevi; Verdier-Pinard, Pascal; Hamel, Ernest

CS Department of Chemistry and The Skaggs Institute for Chemical Biology,
The

Scripps Research Institute, La Jolla, CA, 92037, USA

SO Angew. Chem., Int. Ed. Engl. (1997), 36(19), 2097-2103

CODEN: ACIEAY; ISSN: 0570-0833

PB Wiley-VCH

DT Journal

LA English

AB The title work demonstrates the power of interfacing combinatorial chem. with chem. biol. as facilitated by solid-phase synthesis, radiofrequency encoded combinatorial chem. and modern biol. assays. A library of 112 epothilones were prep'd. by solid-phase synthesis, their structure

activity

relationships measured by tubulin binding assay and some tested for inhibition of carcinoma cell growth.

IT 188259-95-2P 188260-10-8P 188260-34-6P

189453-40-5P 190369-91-6P 190370-10-6P

190370-11-7P 192370-82-4P 193071-75-9P

193071-82-8P 193071-86-2P 193071-89-5P

193071-90-8P 193146-35-9P 193146-36-0P

198571-03-8P 198571-04-9P 198571-13-0P

198571-16-3P 198571-17-4P 198571-18-5P

198571-20-9P 198571-21-0P 198571-22-1P

198571-23-2P 198571-24-3P 198571-25-4P

198571-26-5P 198571-28-7P 198571-29-8P

198571-30-1P 198571-31-2P 198571-32-3P

198571-33-4P 198571-35-6P 198571-36-7P

198571-37-8P 198571-38-9P 198571-39-0P

198571-40-3P 198571-66-3P 198571-67-4P

198571-68-5P 198571-69-6P 198571-70-9P

198571-71-0P 198571-72-1P 198571-73-2P

198571-74-3P 198571-76-5P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

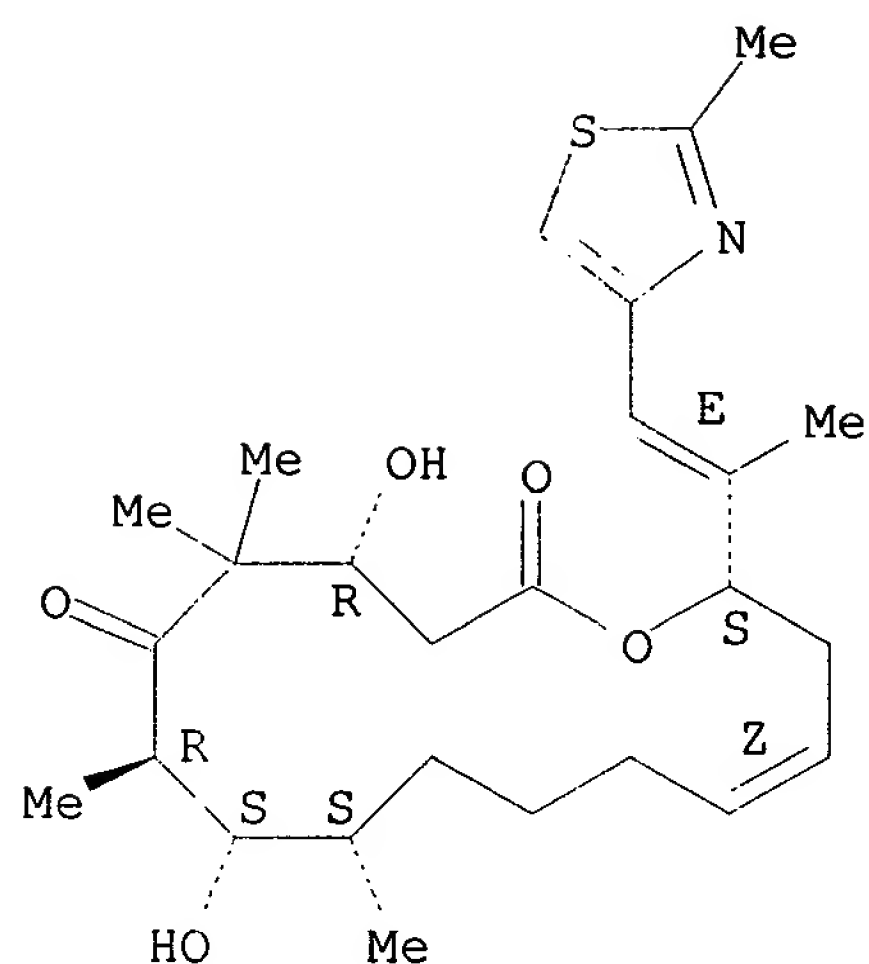
(combinatorial synthesis of epothilone library, tubulin assembly properties, and cytotoxic action against taxol-resistant tumor cells)

RN 188259-95-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8S,9S,13Z,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

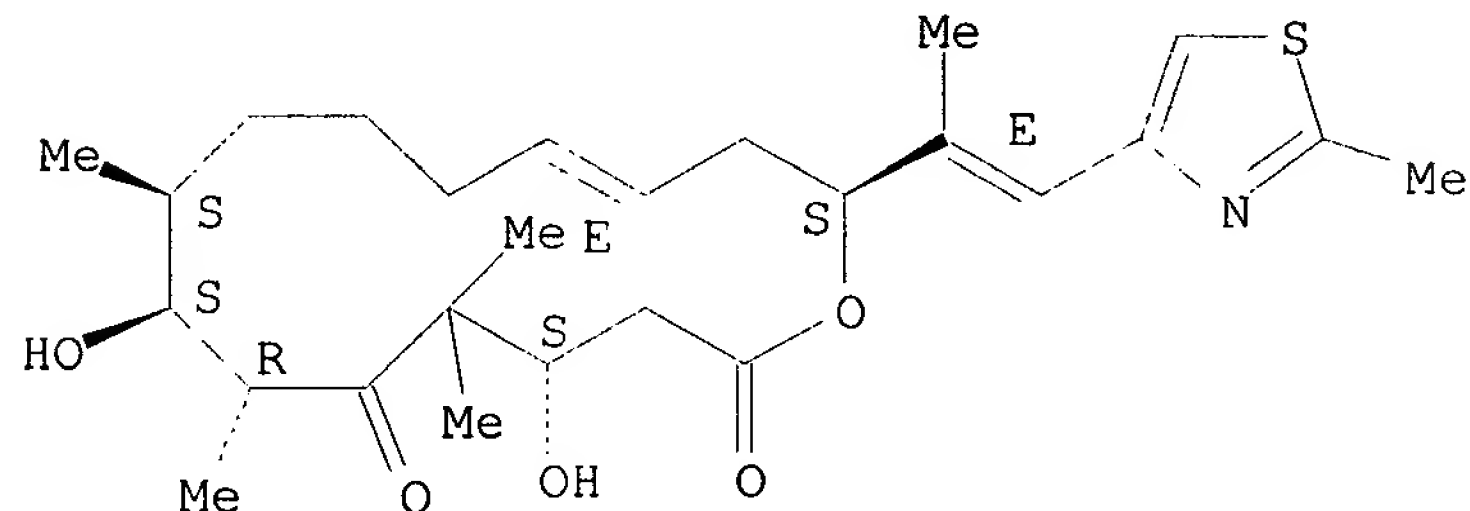
Double bond geometry as shown.



RN 188260-10-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-(9CI) (CA INDEX NAME)

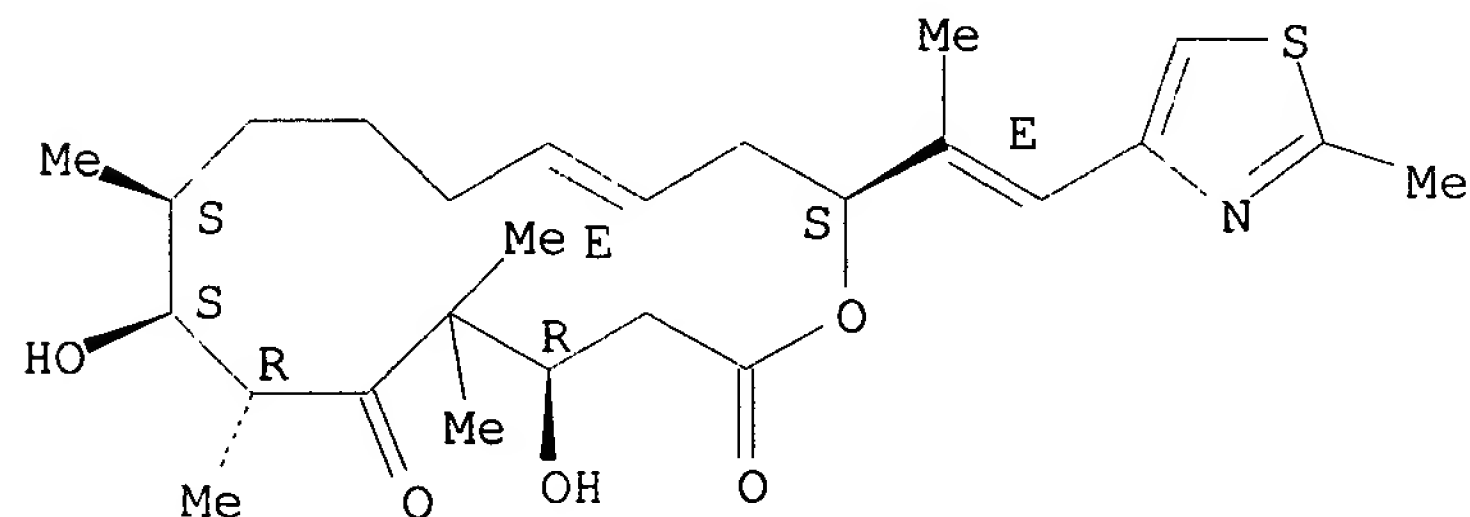
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 188260-34-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8S,9S,13E,16S)-(9CI) (CA INDEX NAME)

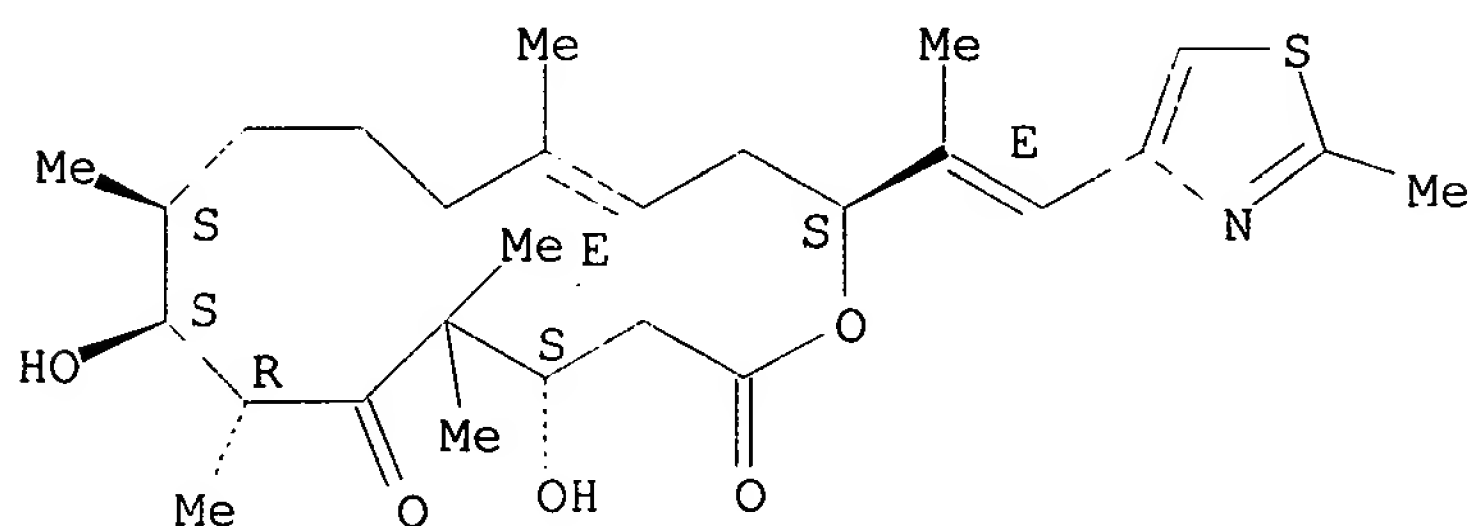
Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



RN 189453-40-5 CAPLUS

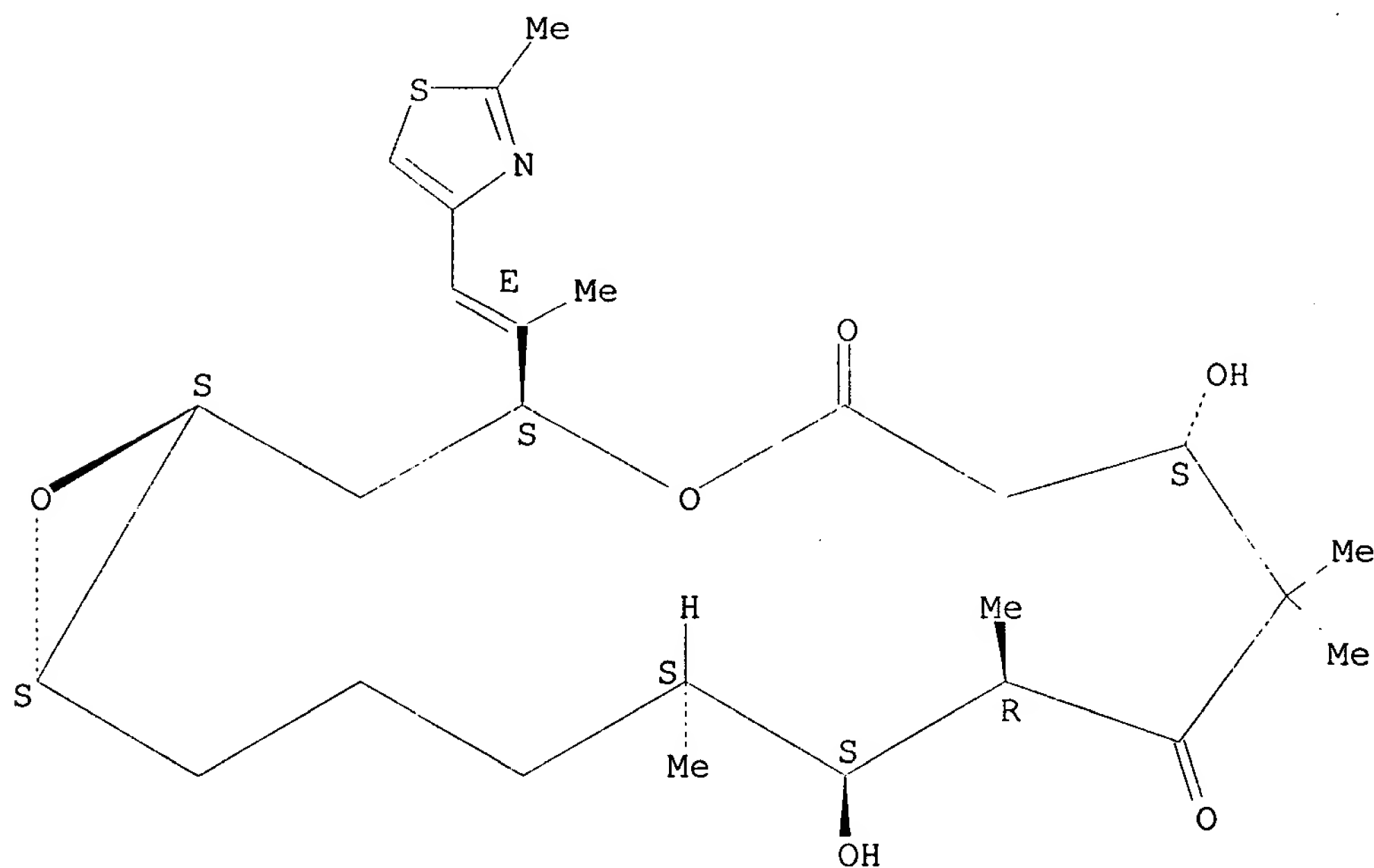
CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



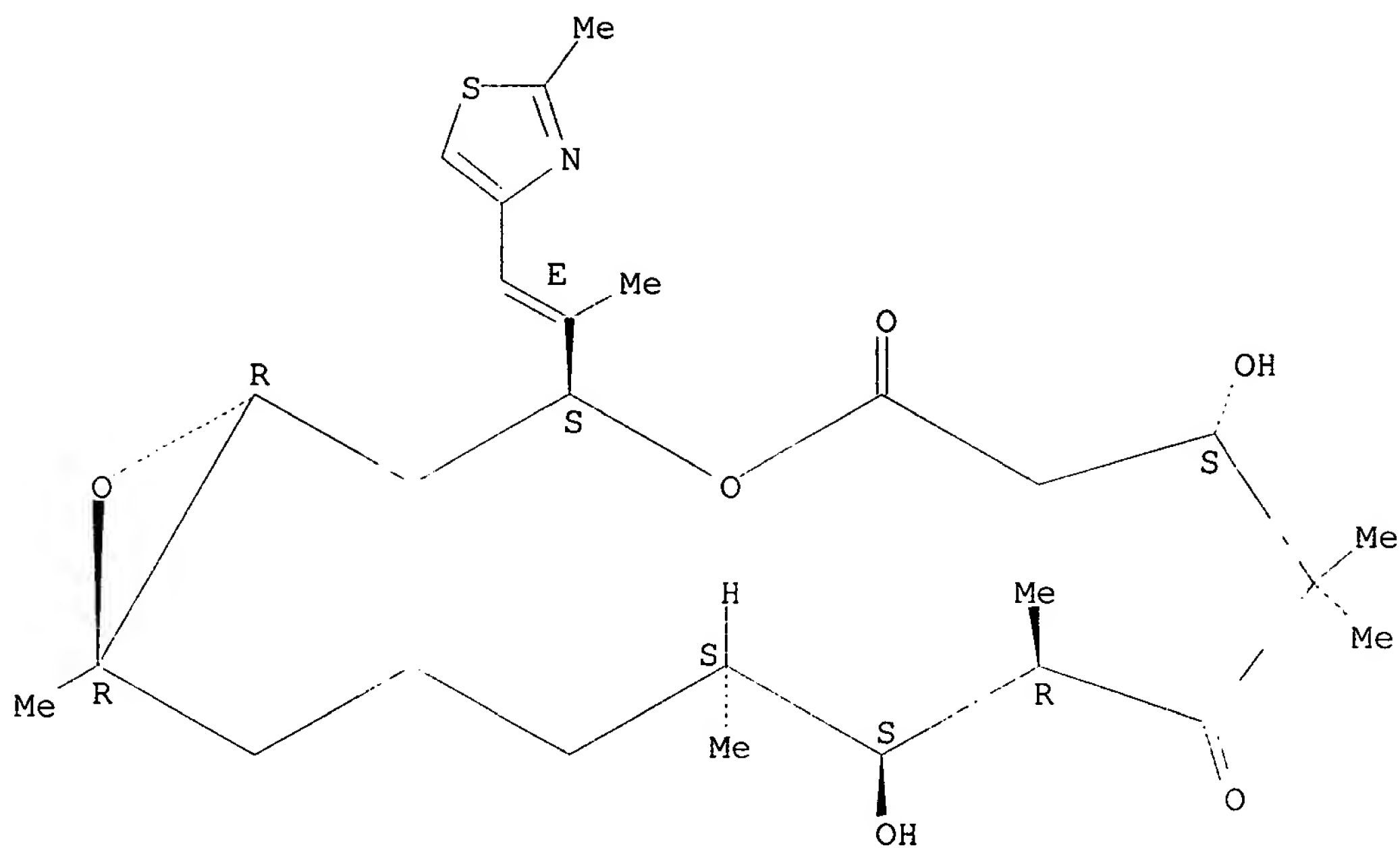
RN 190369-91-6 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-
tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 190370-10-6 CAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-
8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

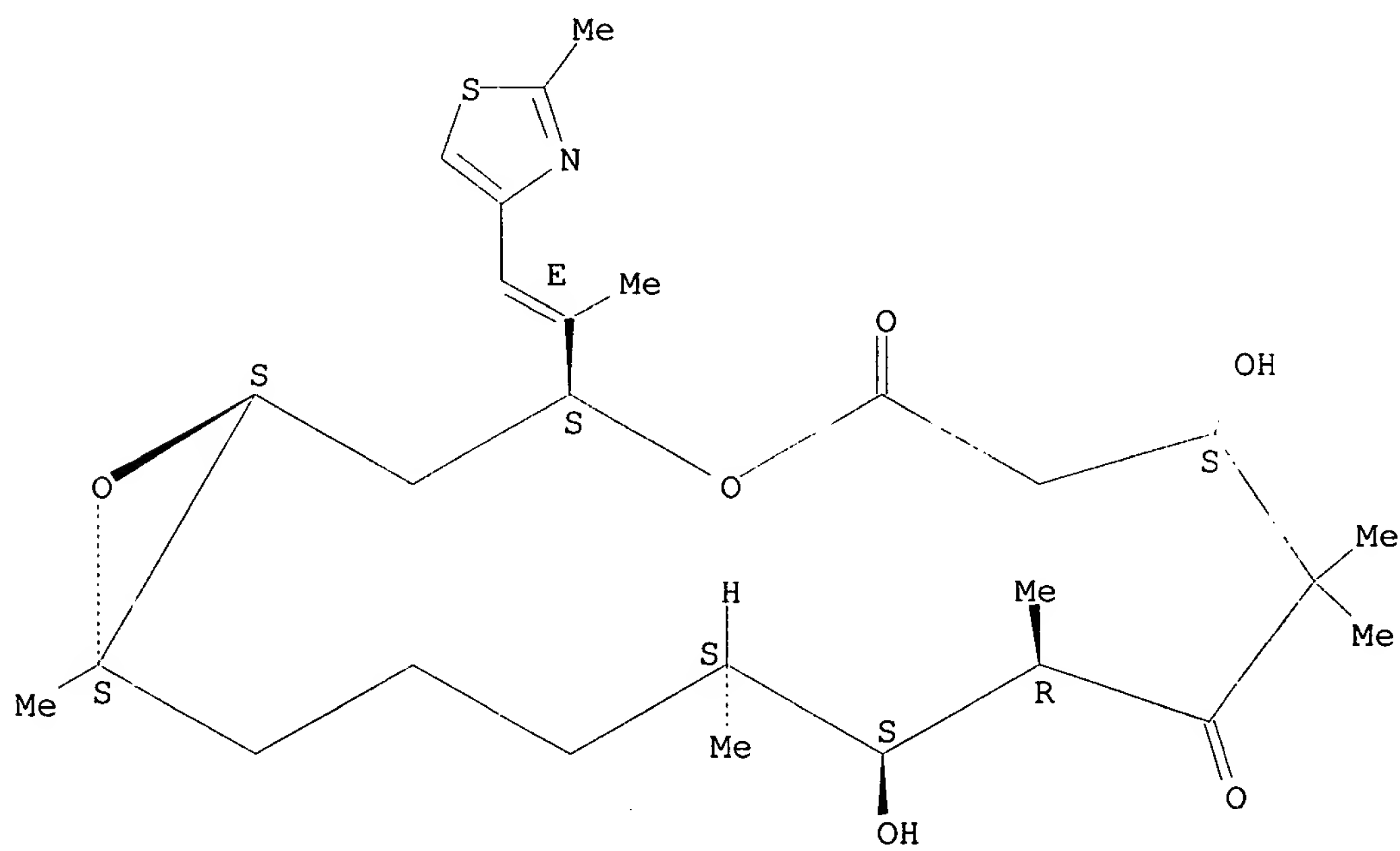


RN 190370-11-7 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

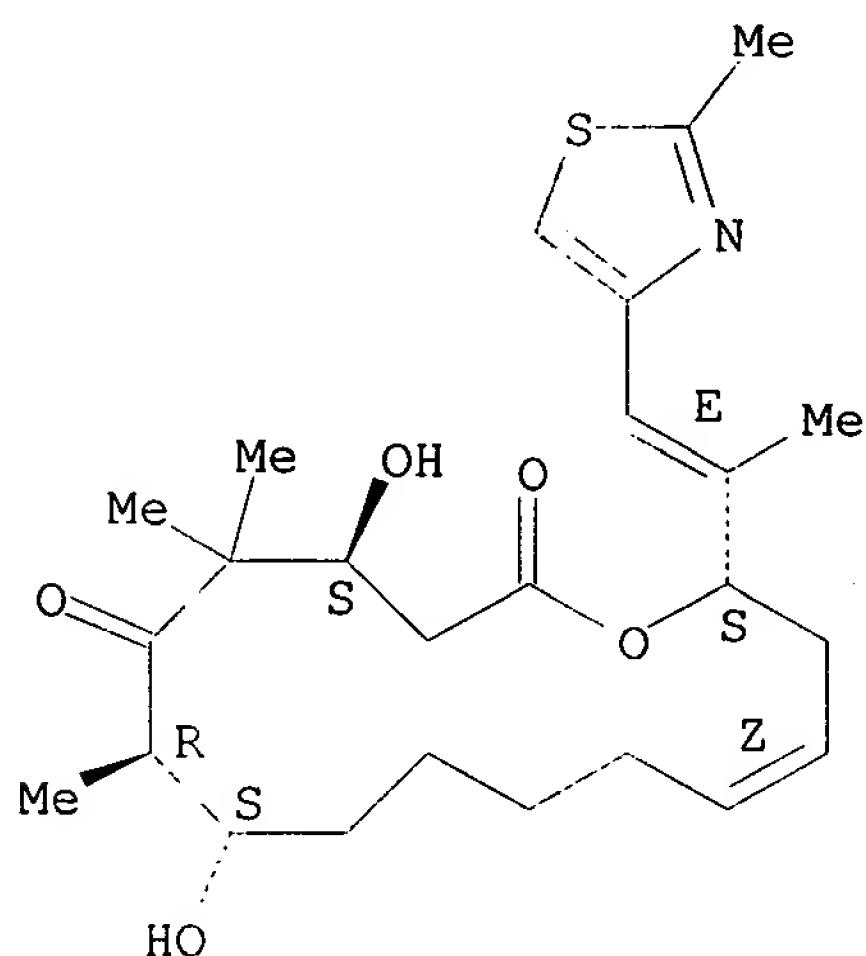
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 192370-82-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7-trimethyl-16-[(1E)-1-
methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,13Z,16S)- (9CI) (CA
INDEX NAME)

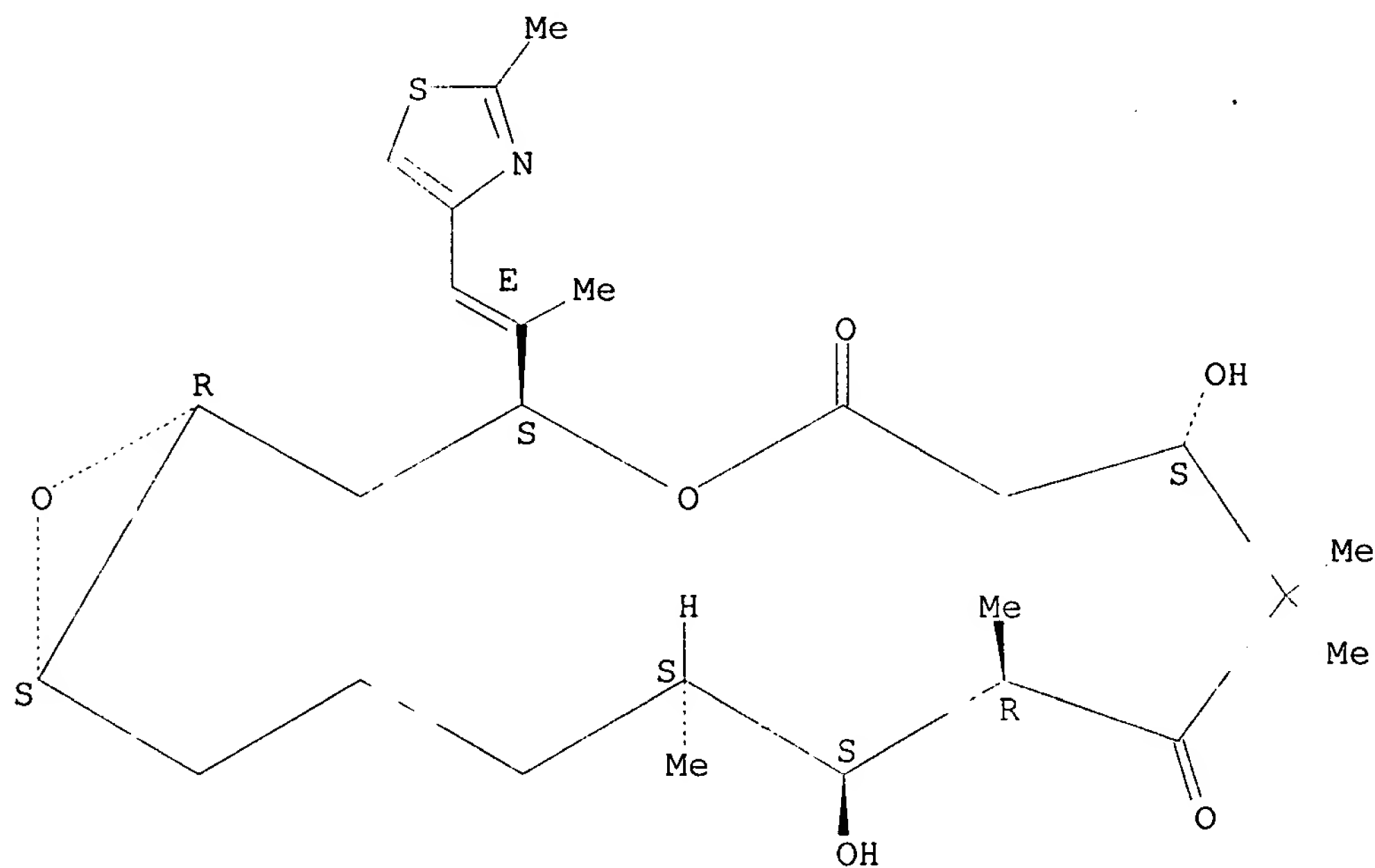
Absolute stereochemistry.
Double bond geometry as shown.



RN 193071-75-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-
tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

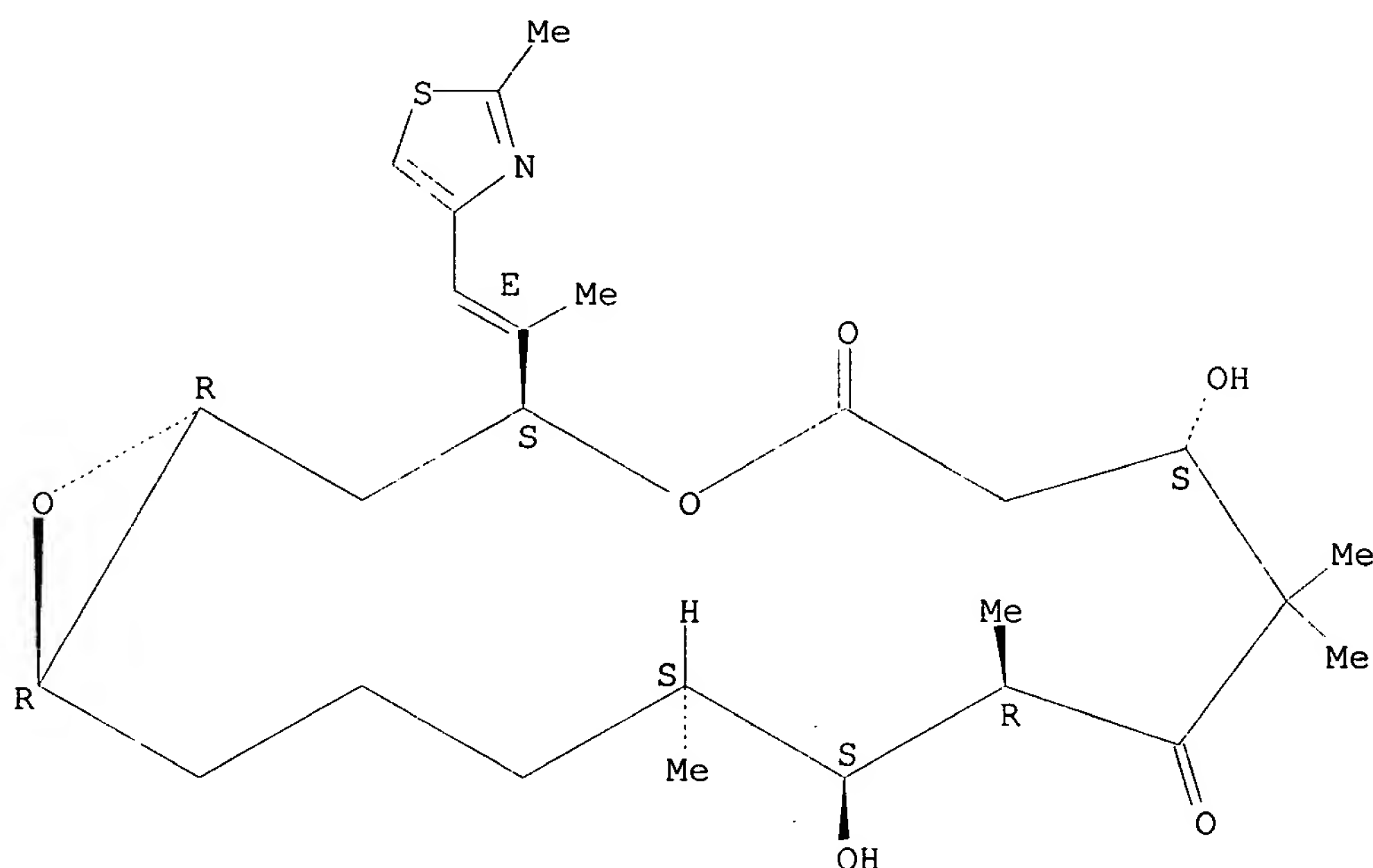
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 193071-82-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

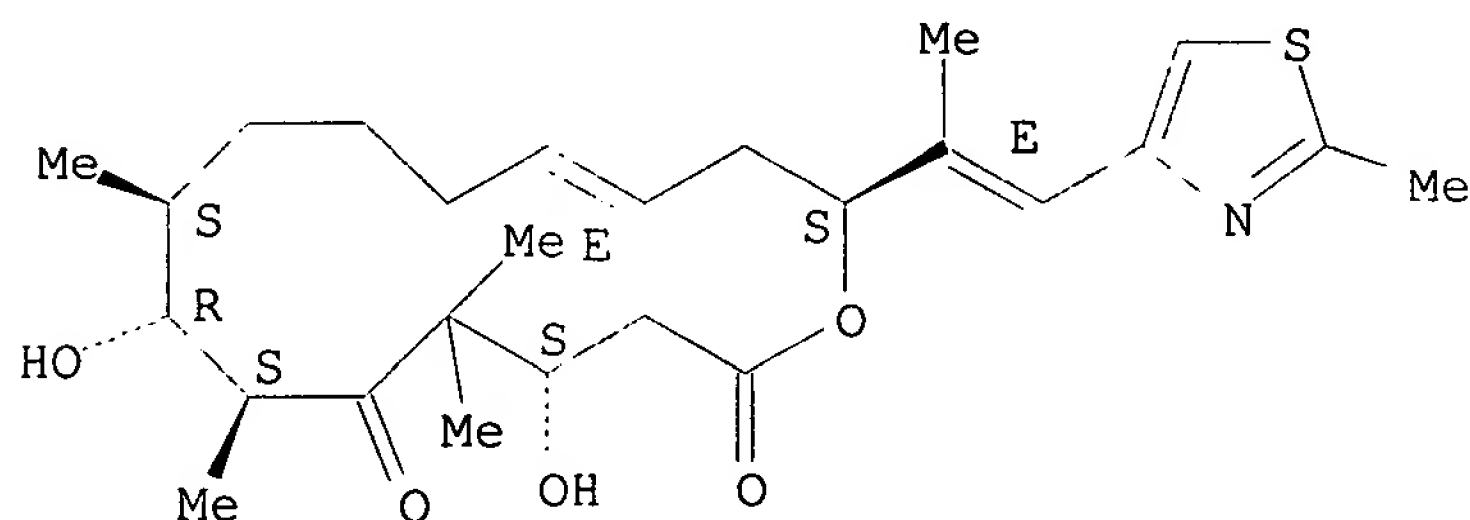
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 193071-86-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9S,13E,16S)- (9CI) (CA INDEX NAME)

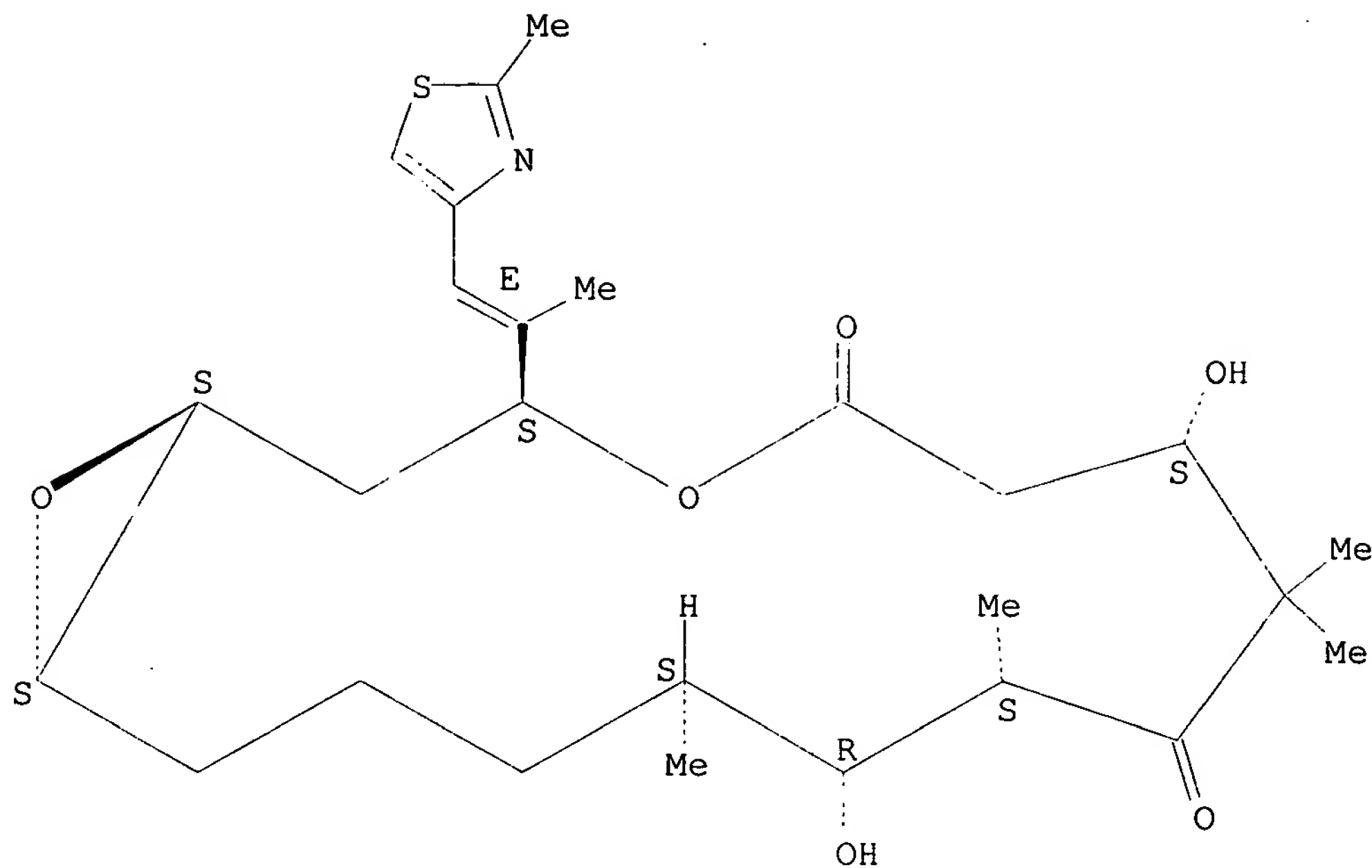
Absolute stereochemistry.
Double bond geometry as shown.



RN 193071-89-5 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10S,11R,12S,16S)- (9CI) (CA INDEX NAME)

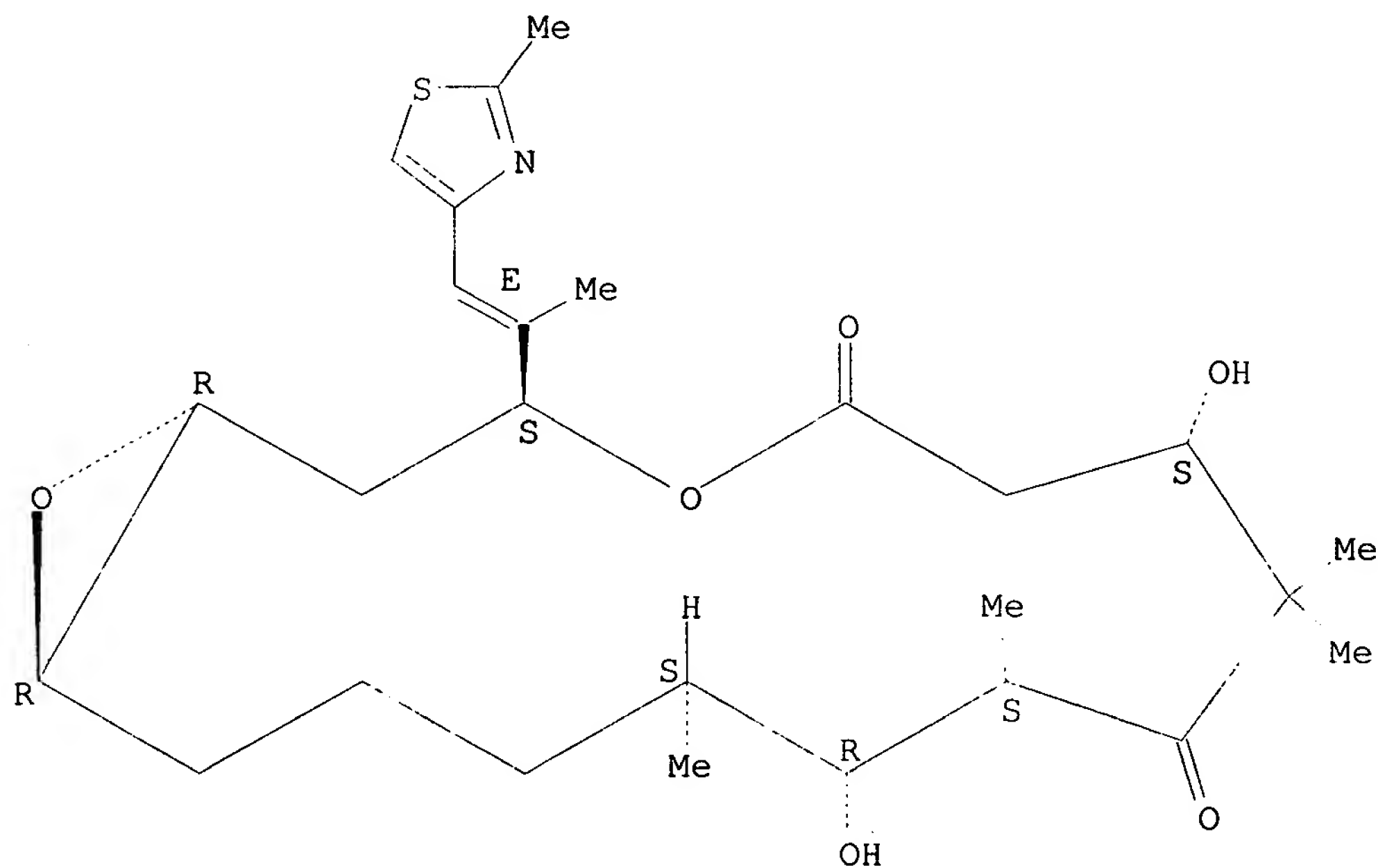
Absolute stereochemistry.
Double bond geometry as shown.



RN 193071-90-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10S;11R,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

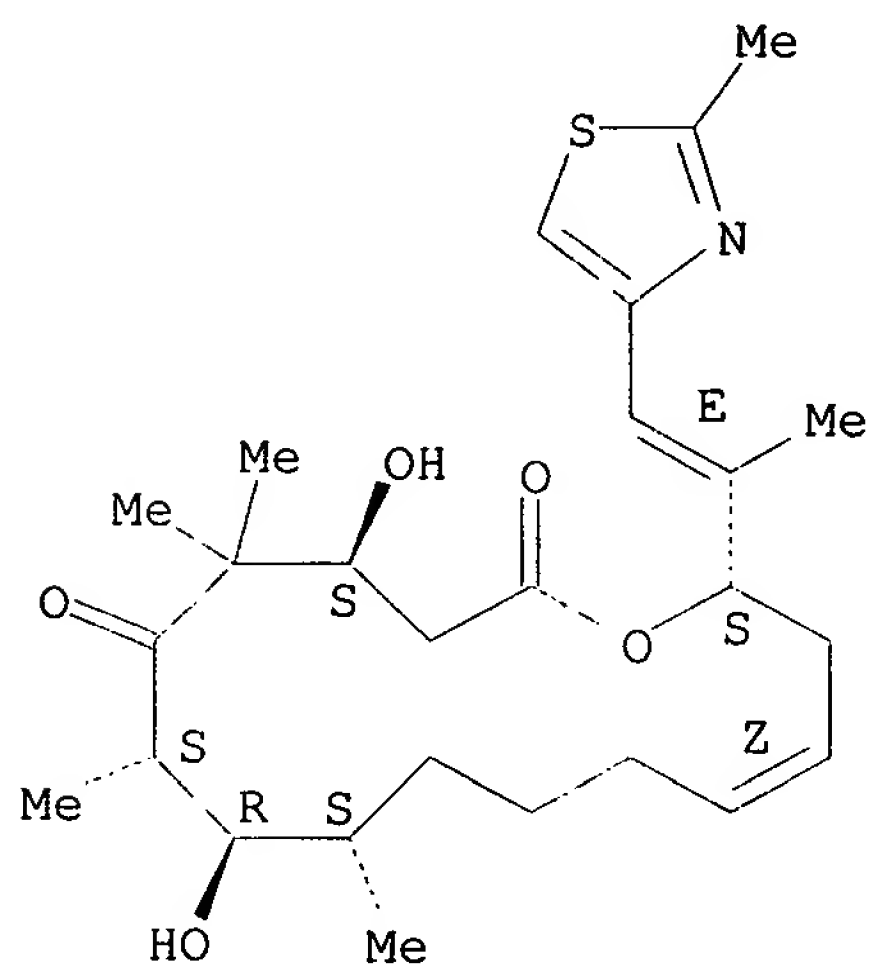


RN 193146-35-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9S,13Z,16S)-

(9CI) (CA INDEX NAME)

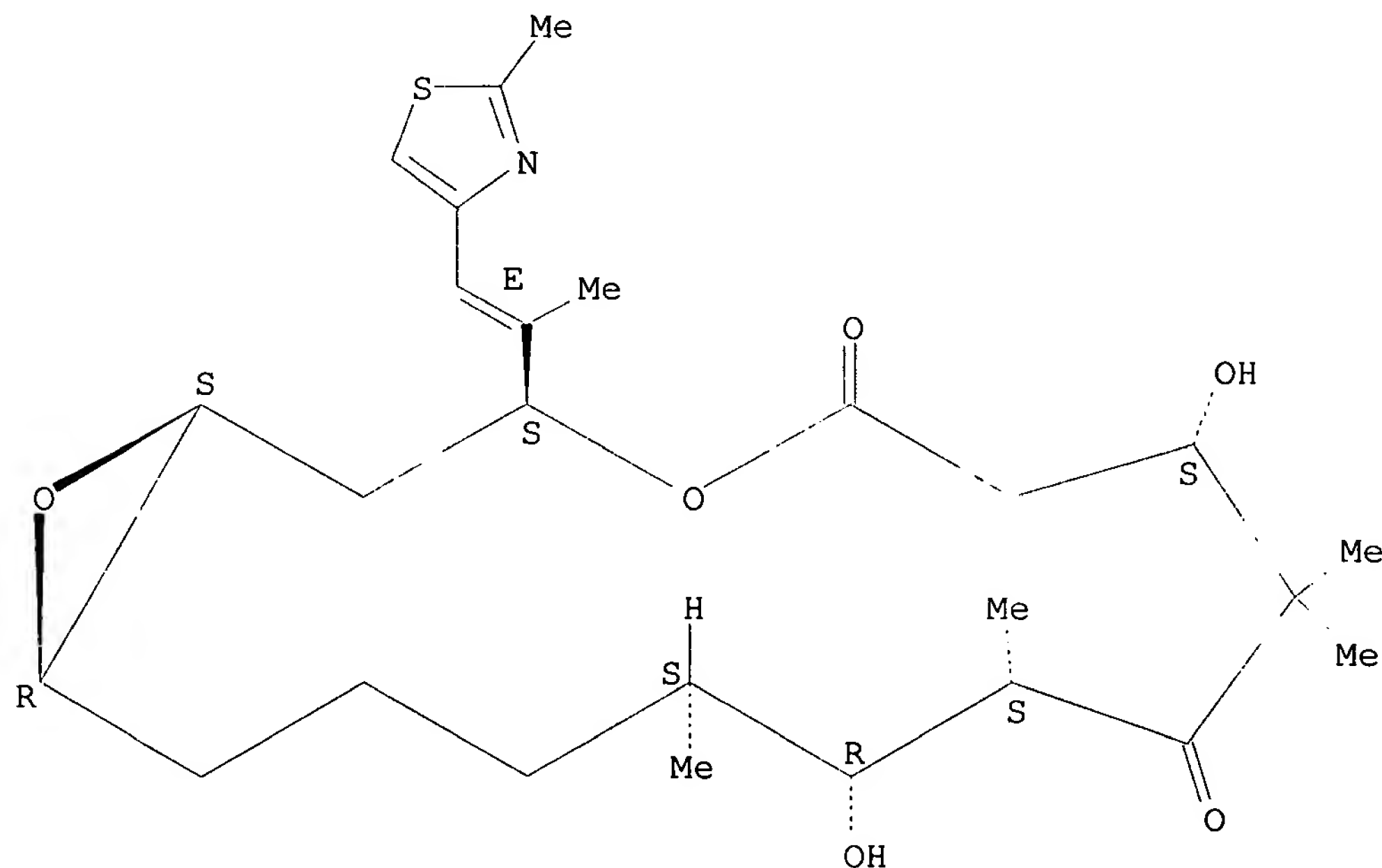
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 193146-36-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10S,11R,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

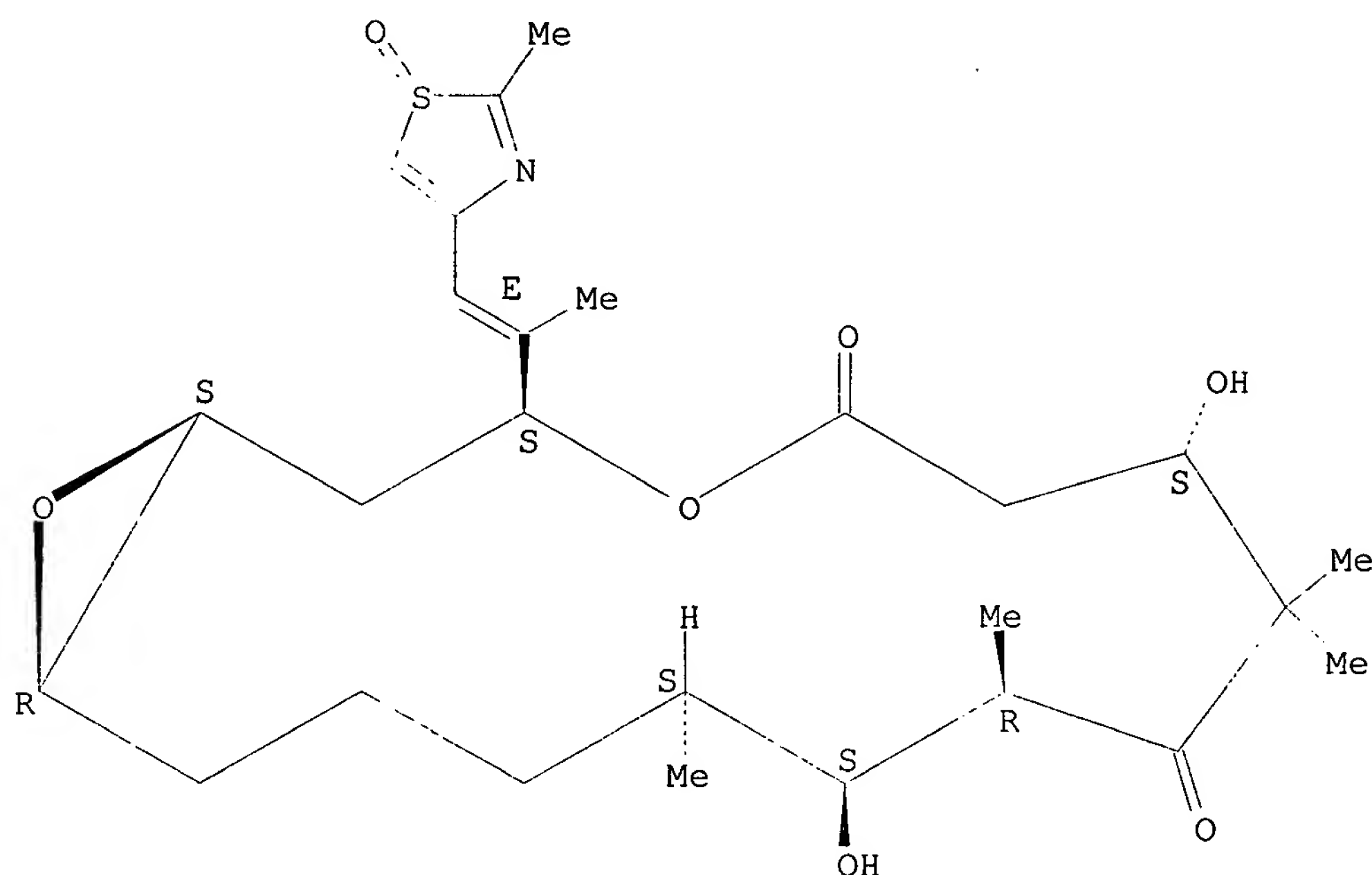


RN 198571-03-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-1-oxido-4-thiazolyl)ethenyl]-,

(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

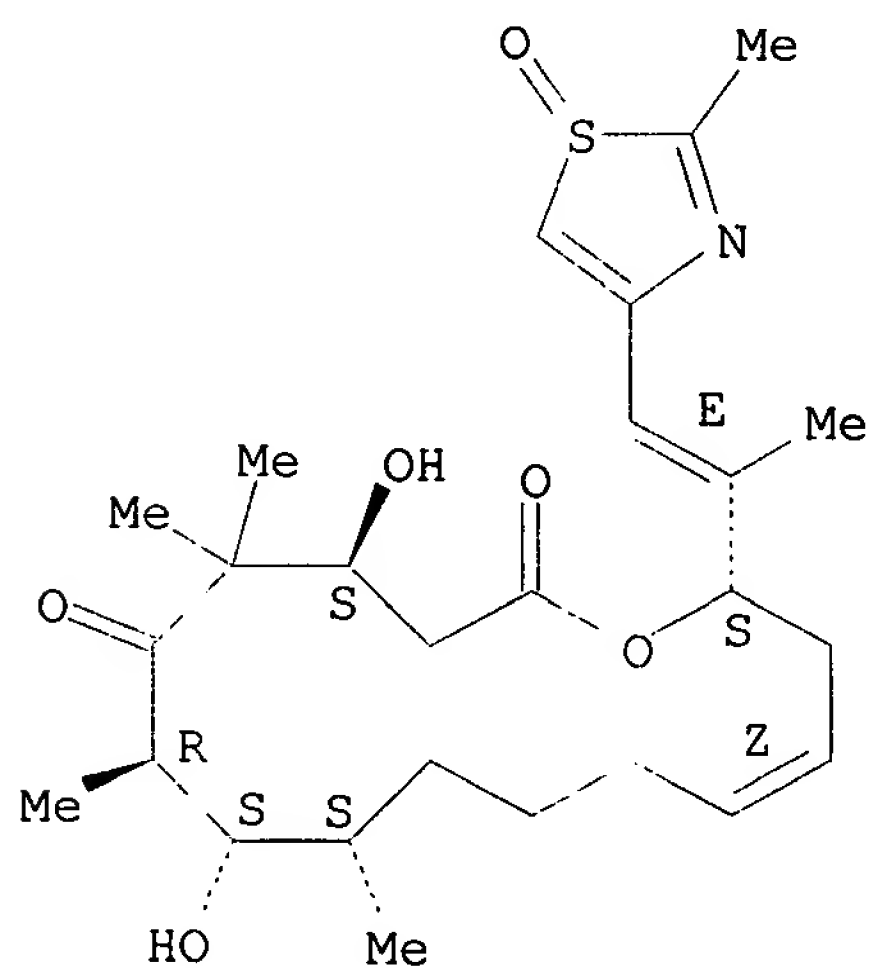
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-04-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-1-oxido-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

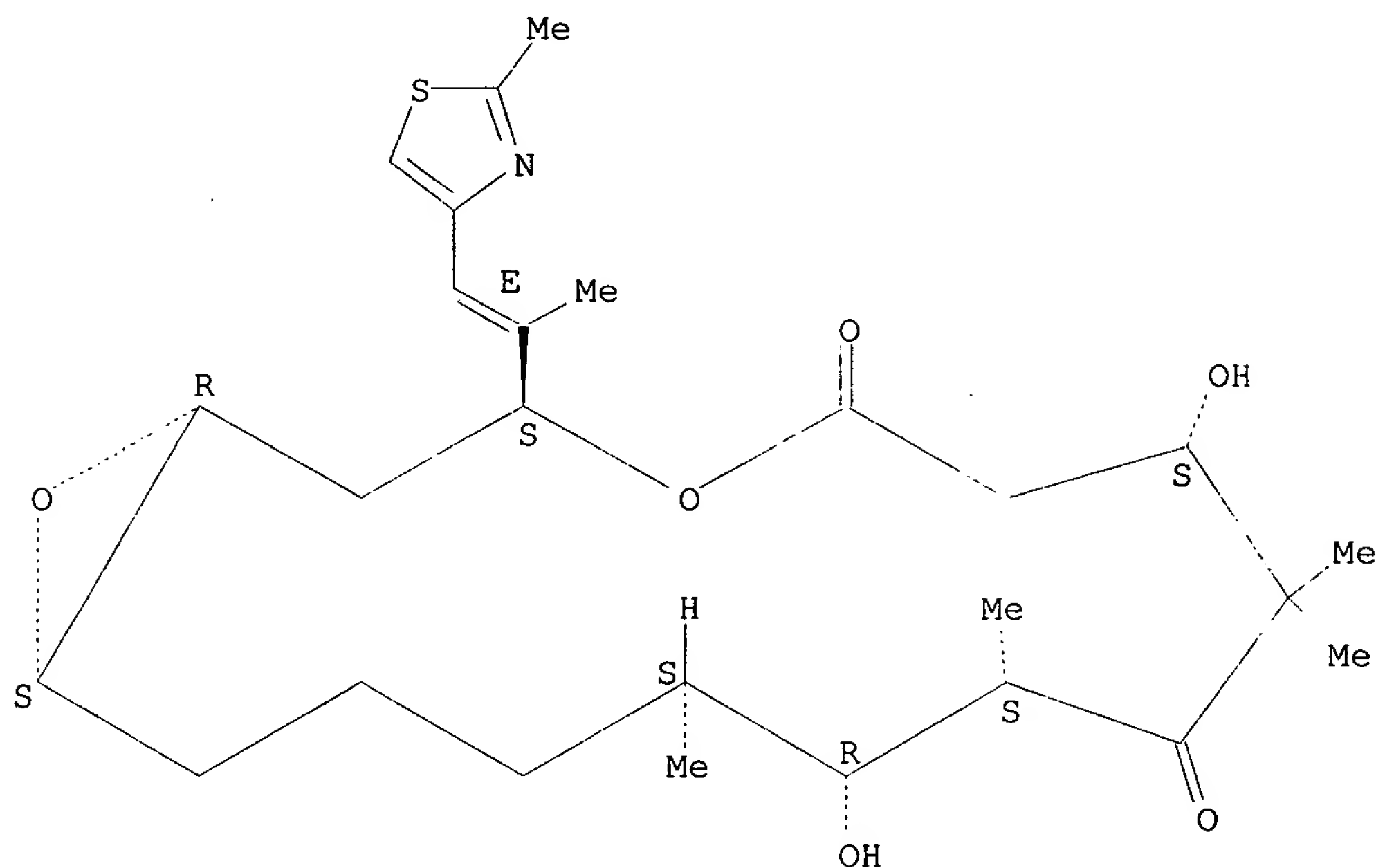


RN 198571-13-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,

(1R,3S,7S,10S,11R,12S,16S)- (9CI) (CA INDEX NAME)

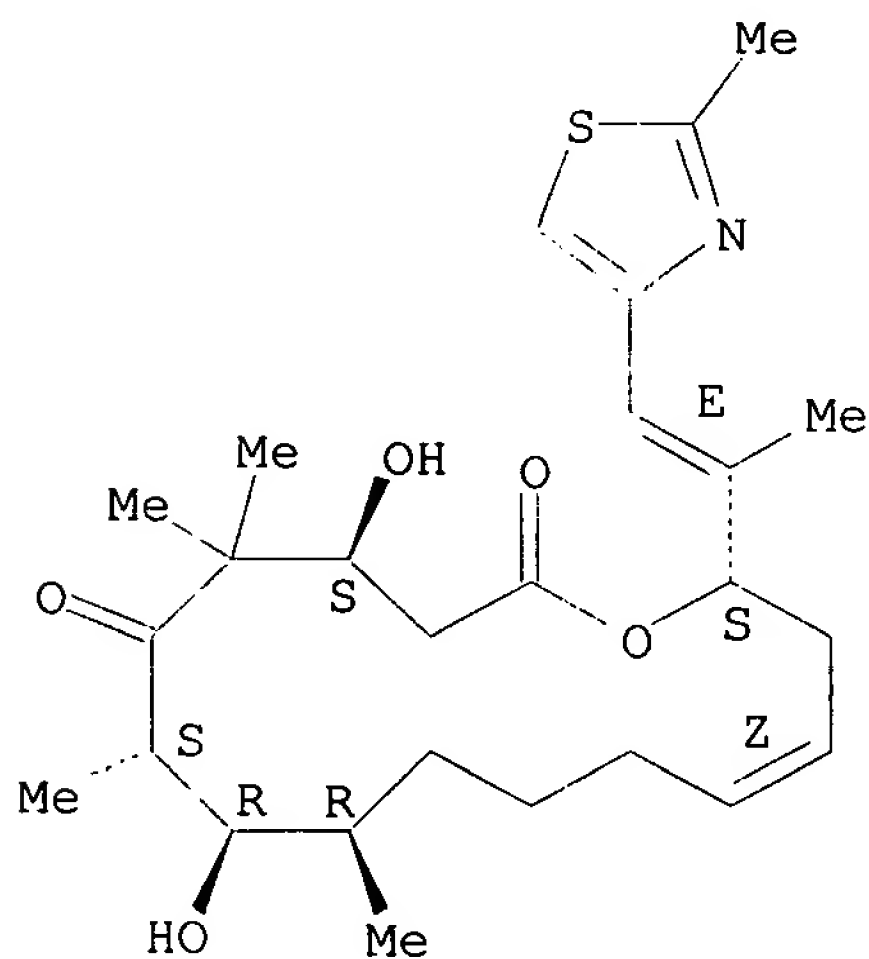
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-16-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9R,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

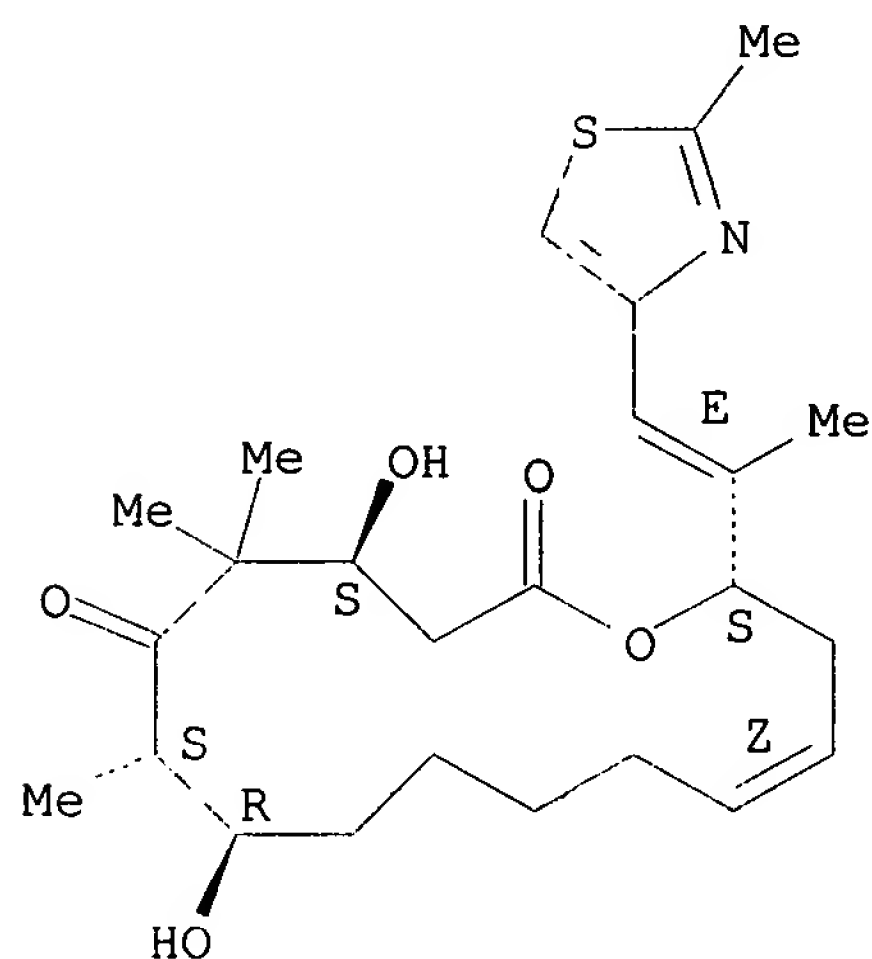


RN 198571-17-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7-trimethyl-16-[(1E)-1-

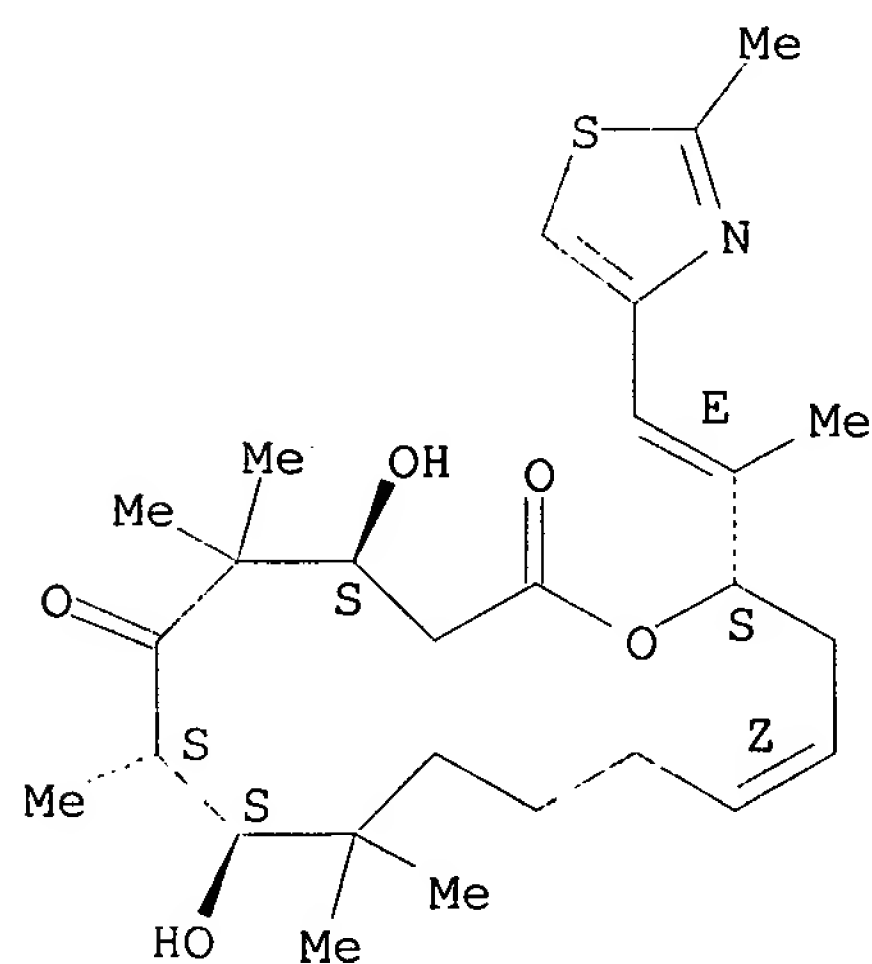
methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



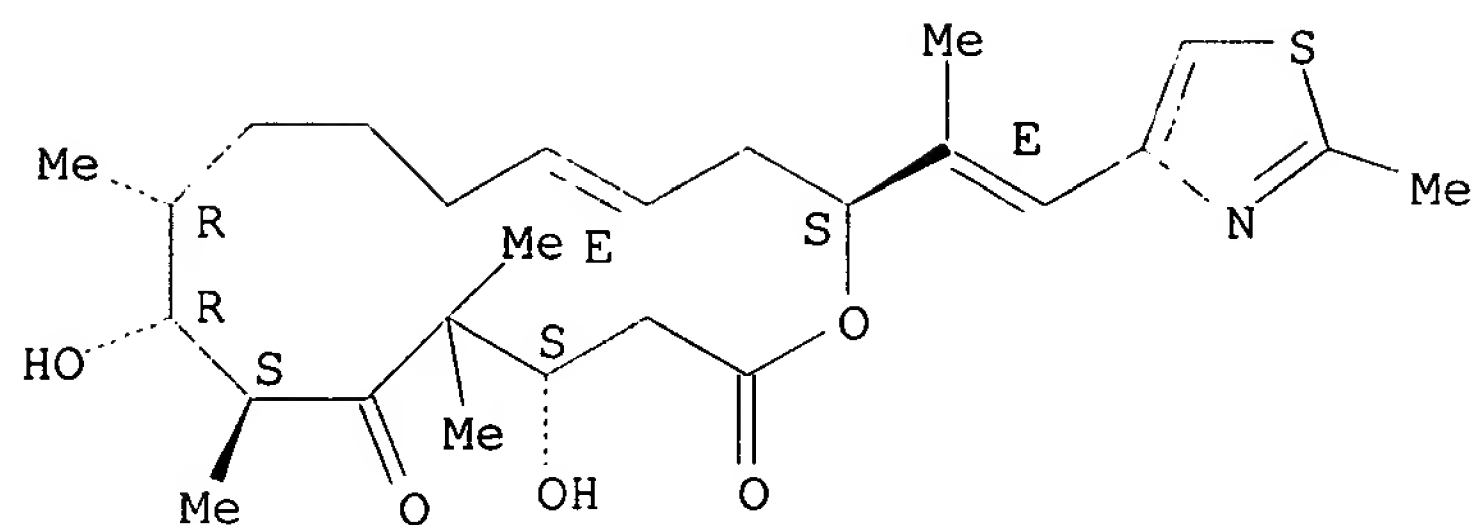
RN 198571-18-5 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-20-9 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9R,13E,16S)- (9CI) (CA INDEX NAME)

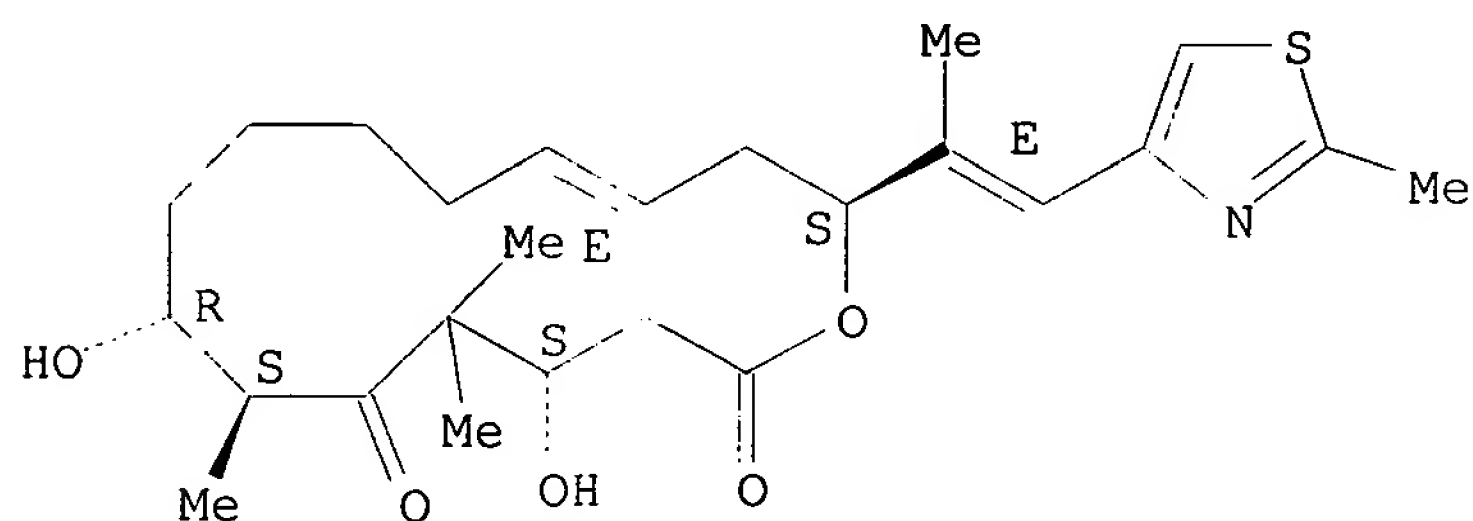
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-21-0 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7-trimethyl-16-[(1E)-1-
methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,13E,16S)- (9CI) (CA
INDEX NAME)

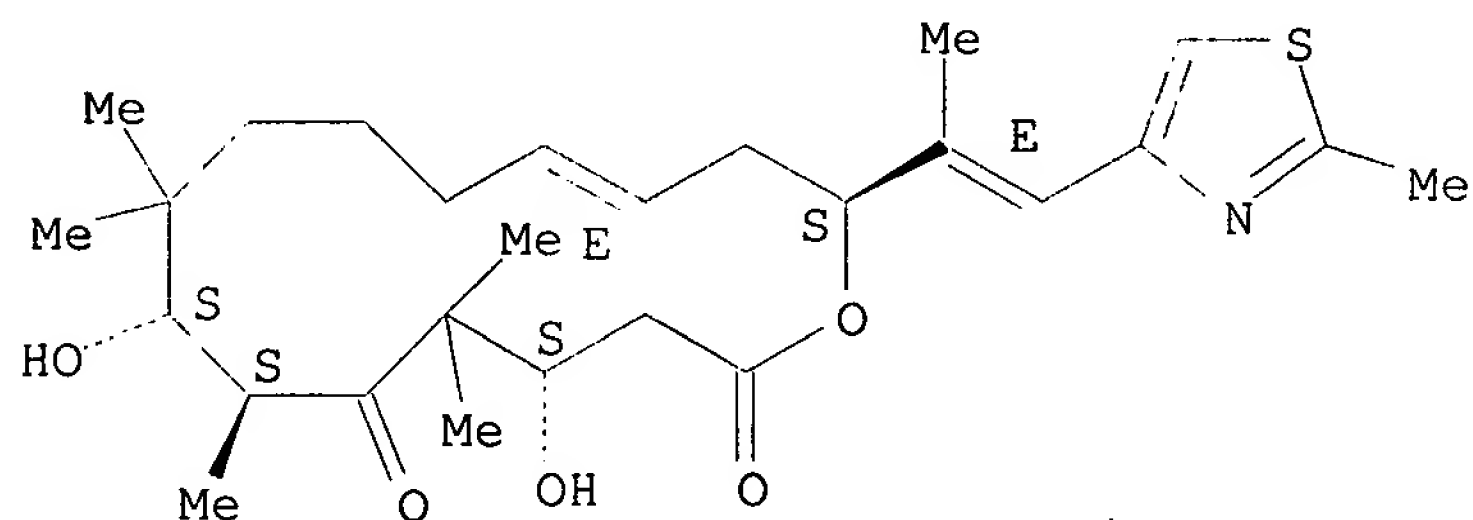
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-22-1 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8S,13E,16S)-
(9CI) (CA INDEX NAME)

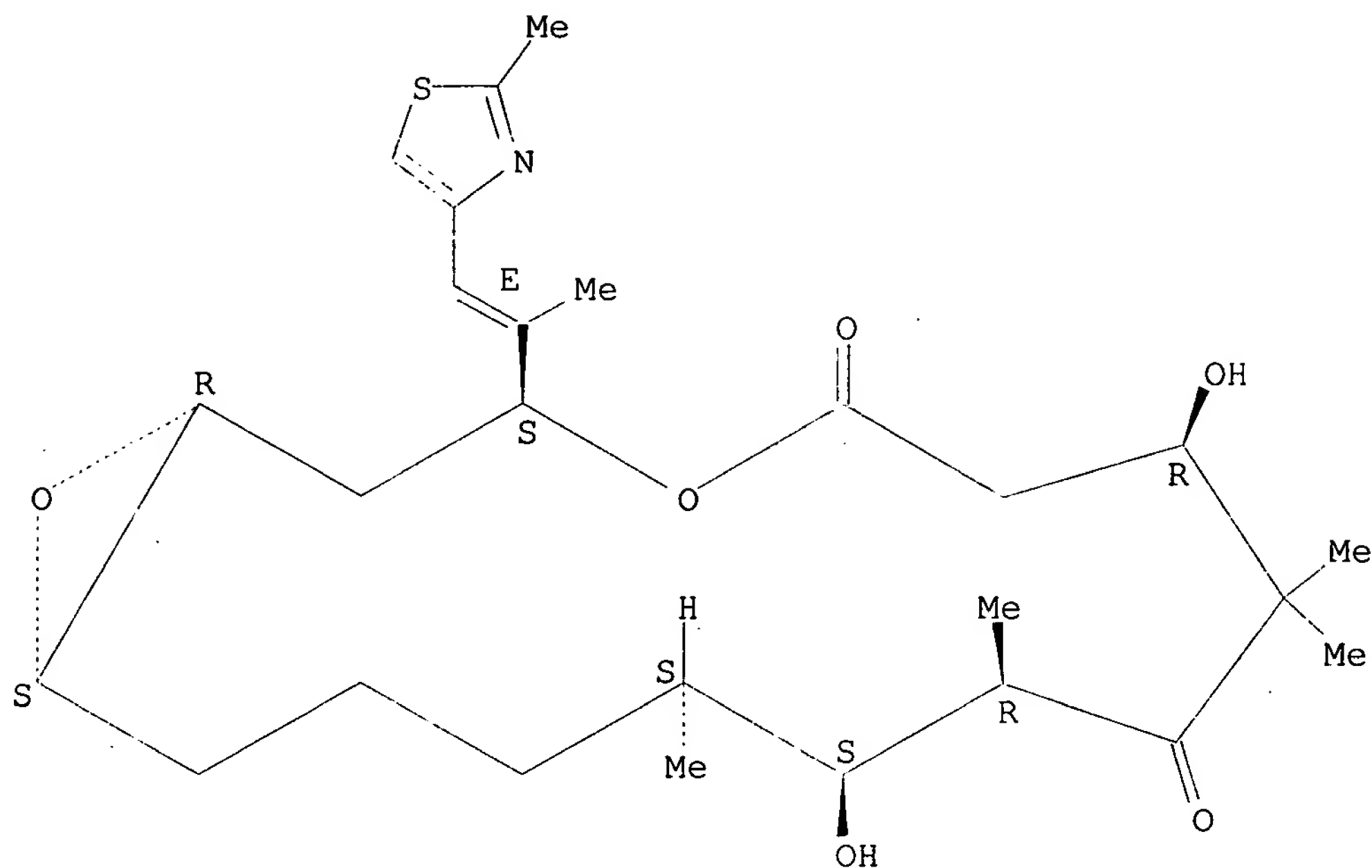
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-23-2 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-
tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1R,3S,7R,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

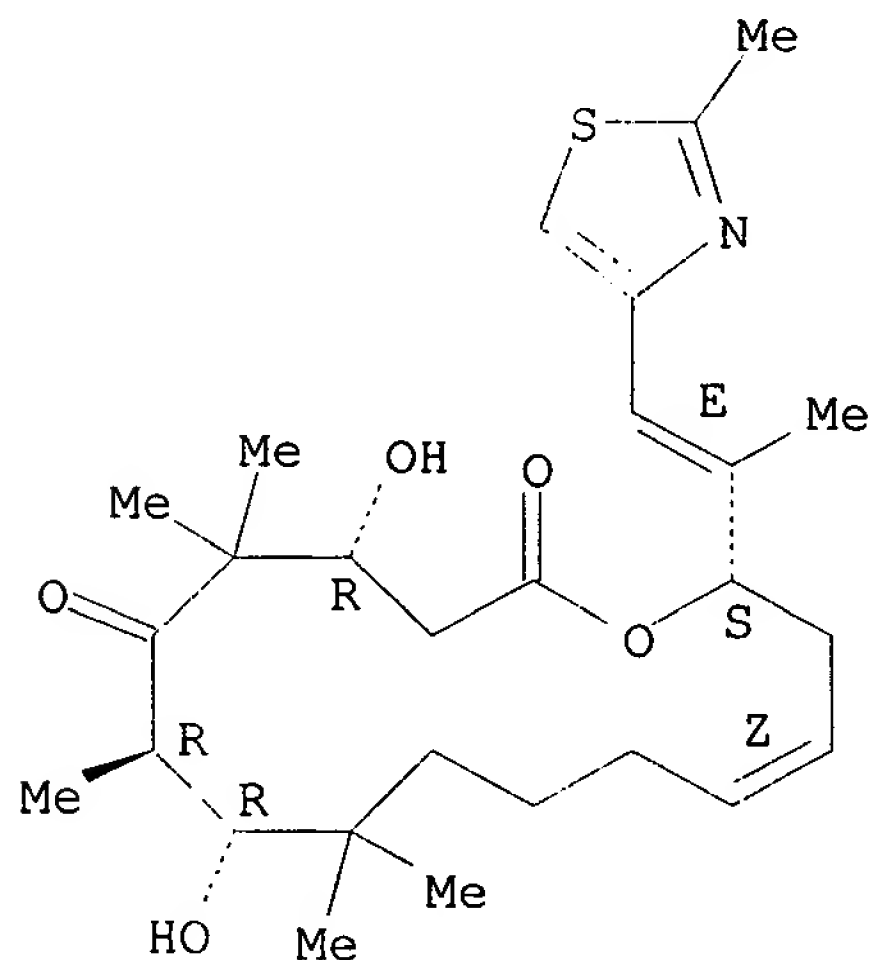
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-24-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8R,13Z,16S)- (9CI) (CA INDEX NAME)

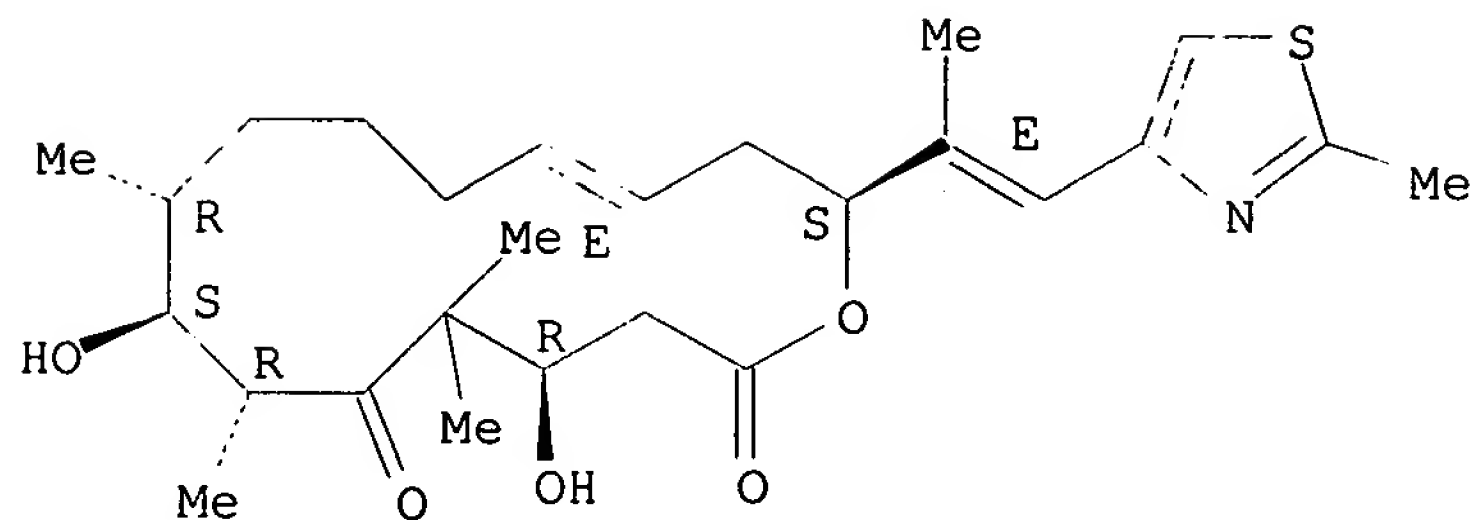
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-25-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8S,9R,13E,16S)- (9CI) (CA INDEX NAME)

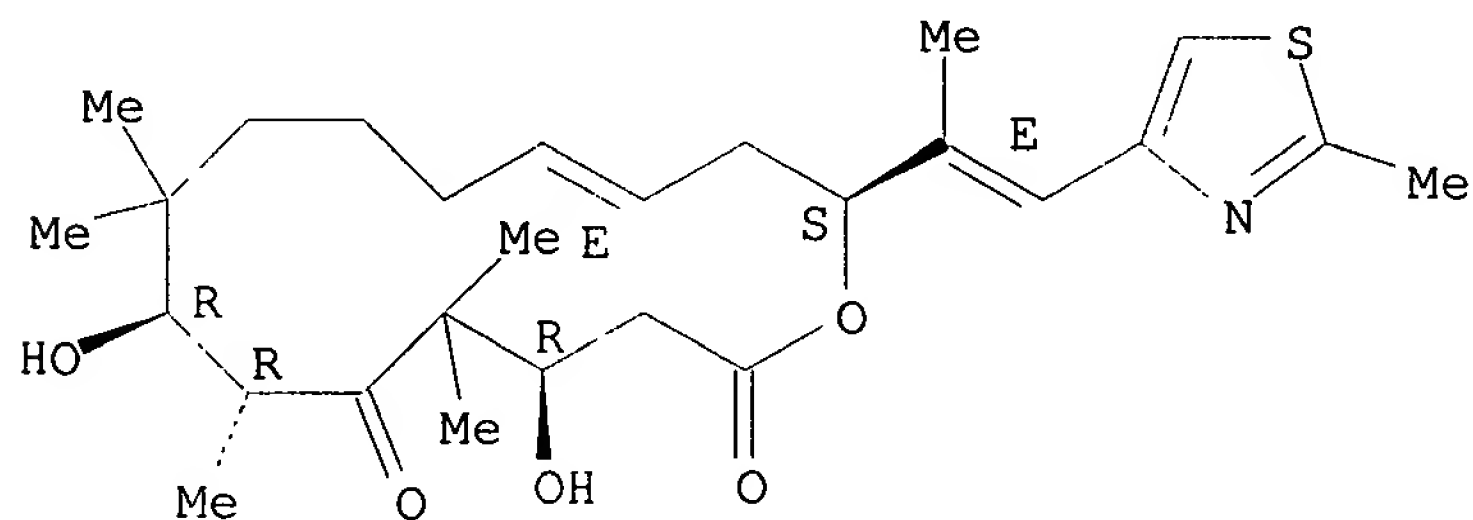
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-26-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8R,13E,16S)-(9CI) (CA INDEX NAME)

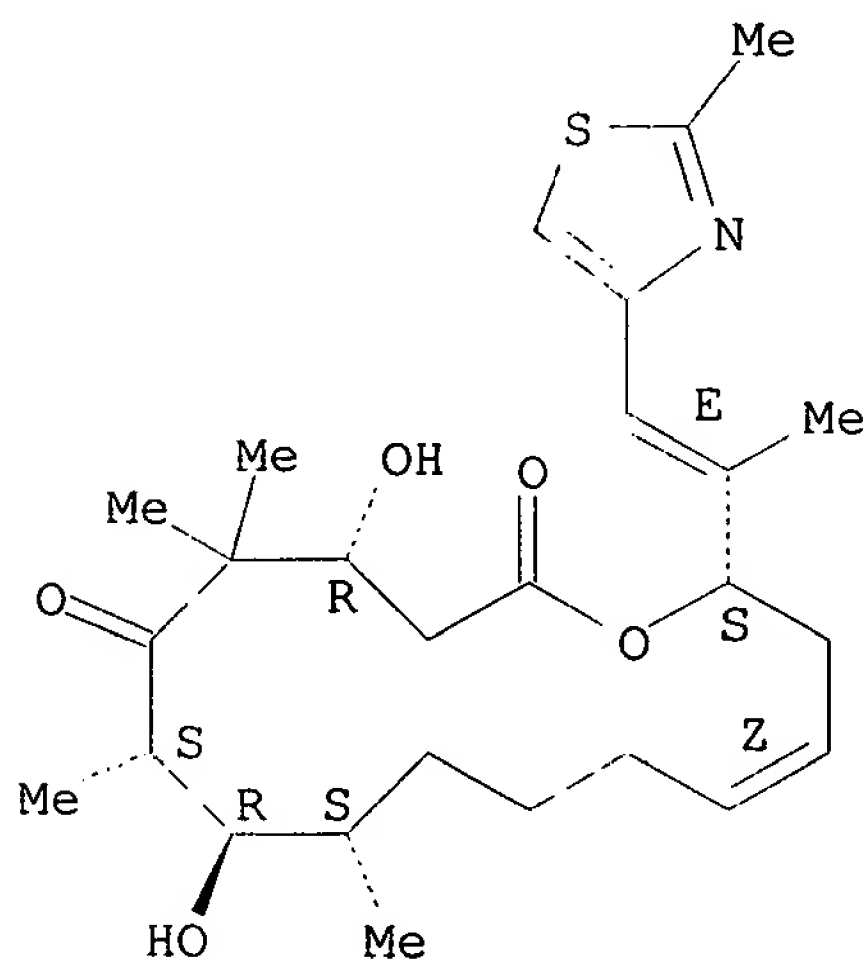
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-28-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7S,8R,9S,13Z,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

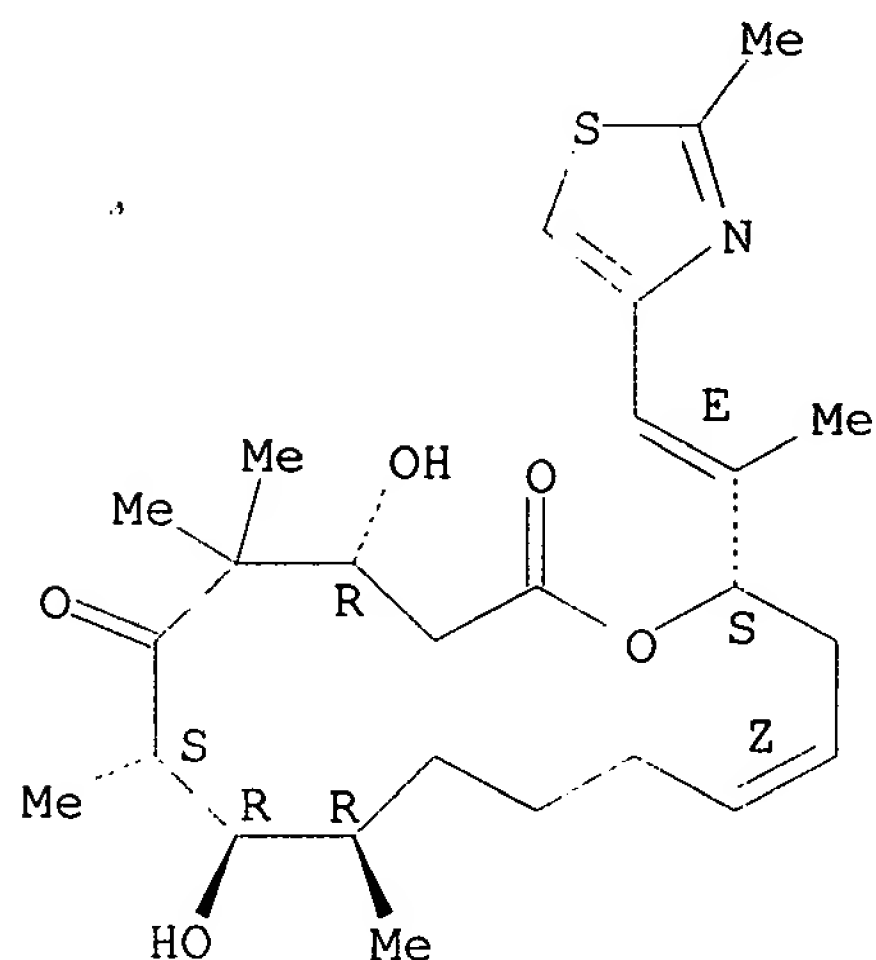


RN 198571-29-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-

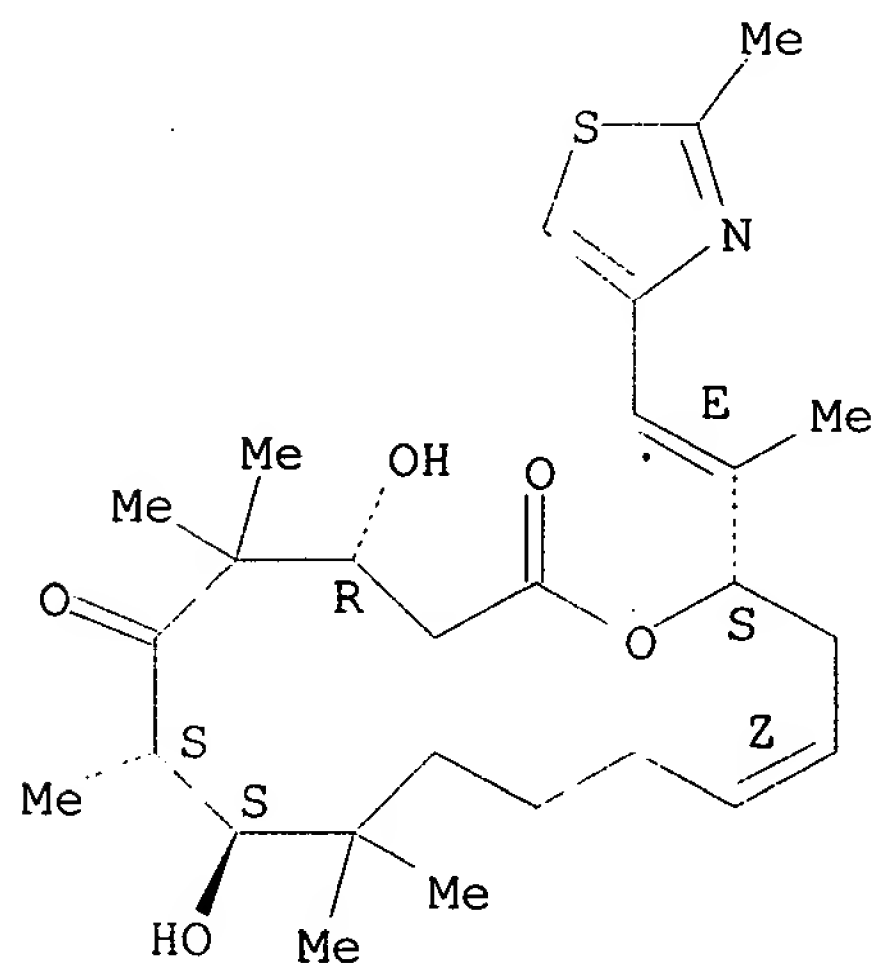
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7S,8R,9R,13Z,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



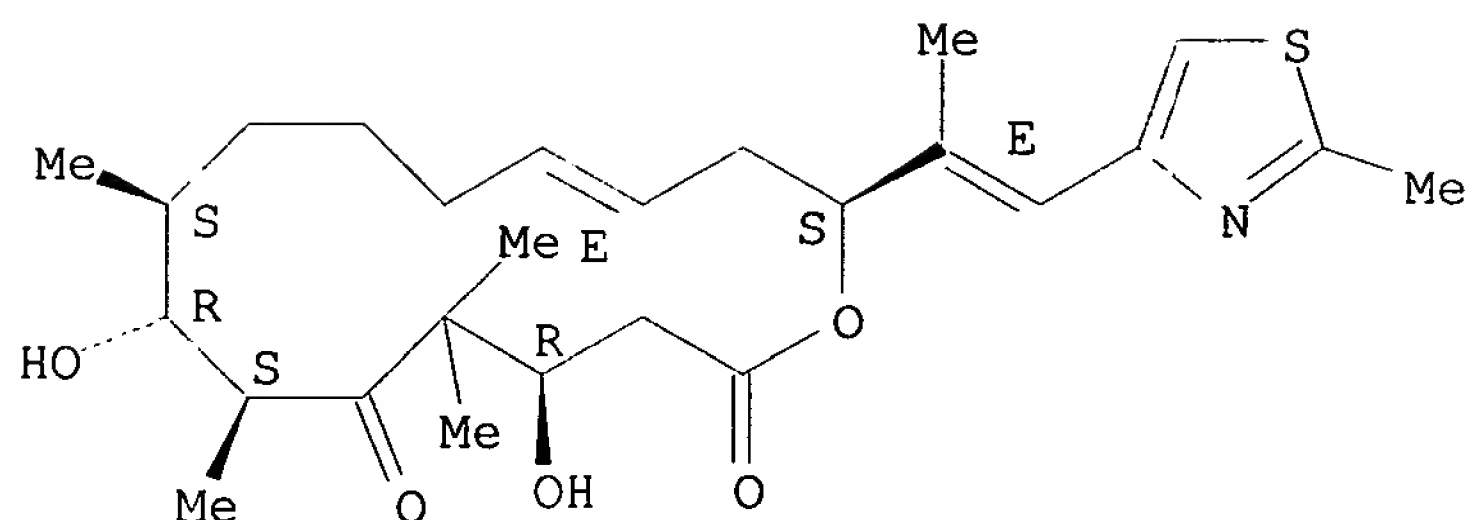
RN 198571-30-1 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7S,8S,13Z,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-31-2 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7S,8R,9S,13E,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

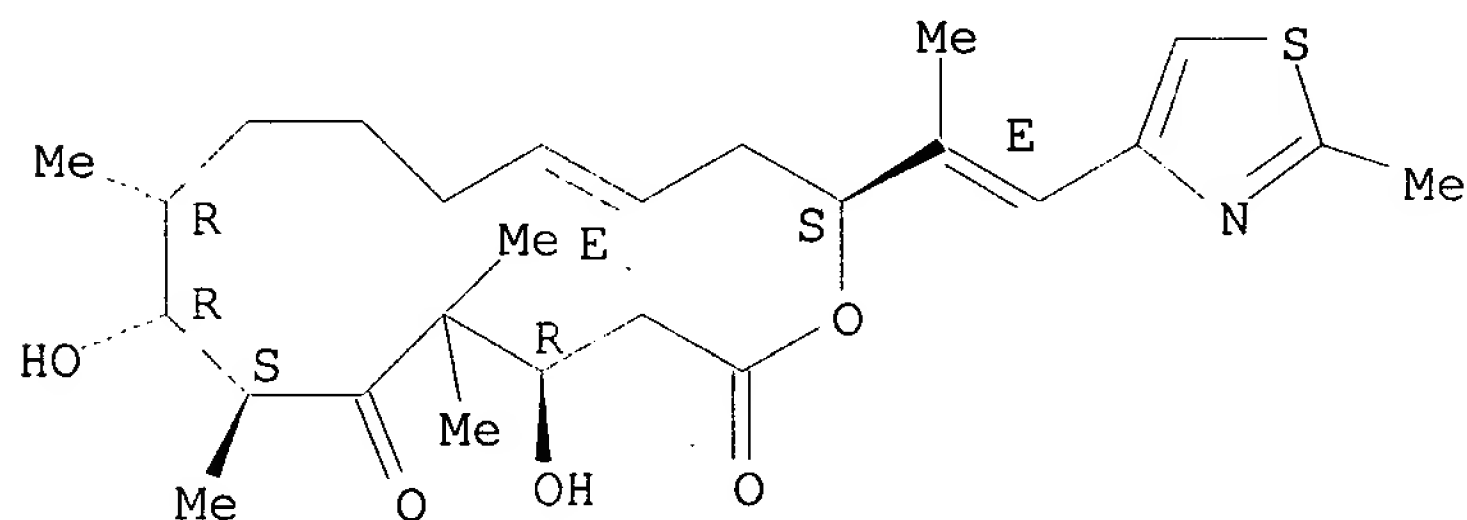


RN 198571-32-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7S,8R,9R,13E,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

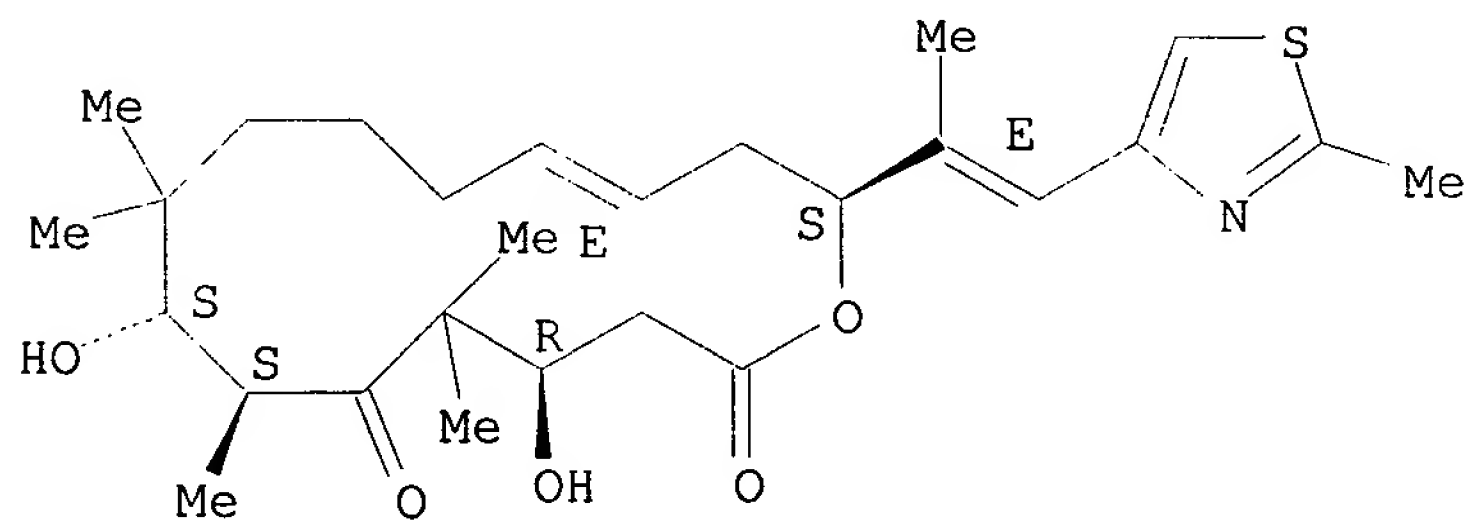


RN 198571-33-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7S,8S,13E,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

. Double bond geometry as shown.

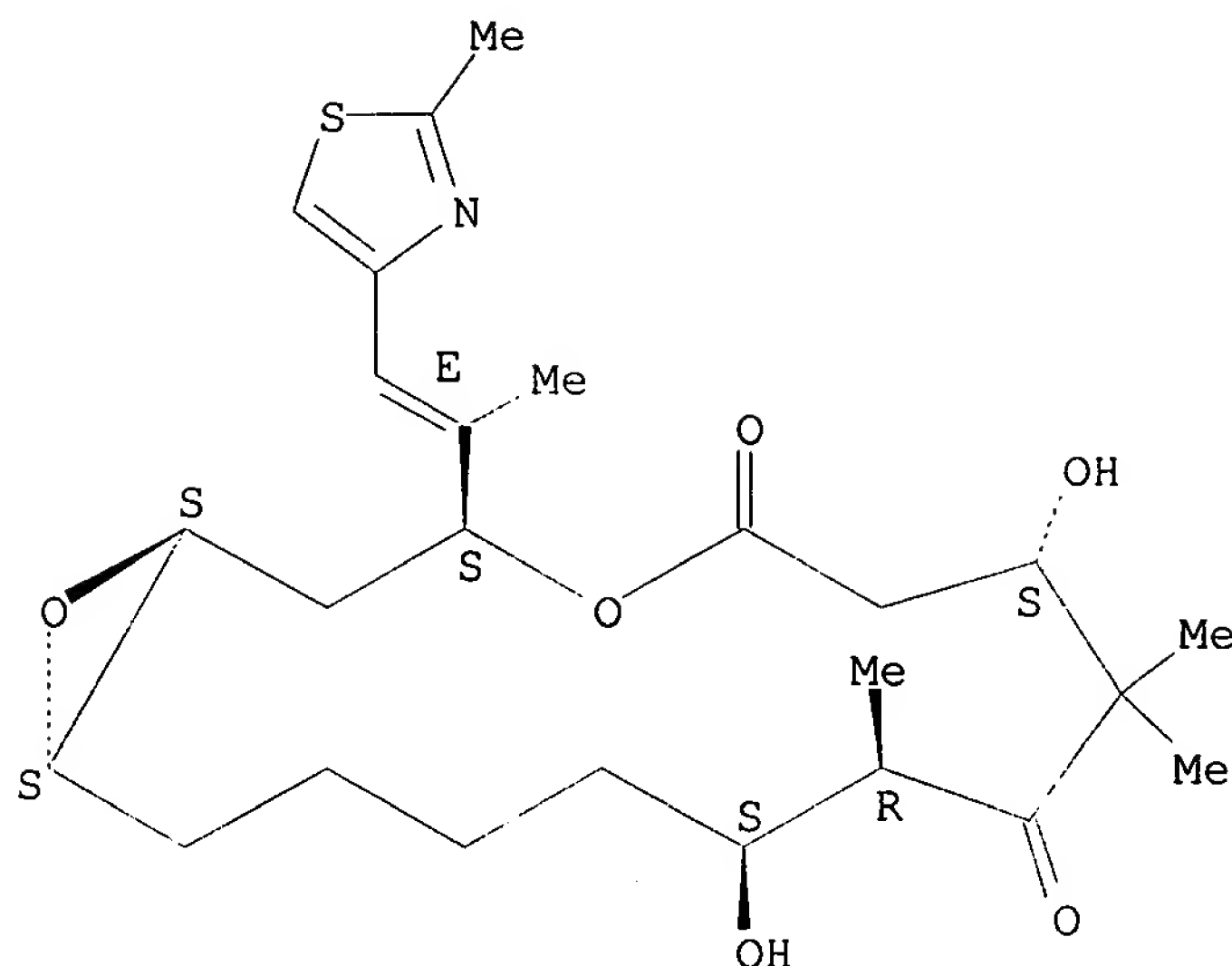


RN 198571-35-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10-trimethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

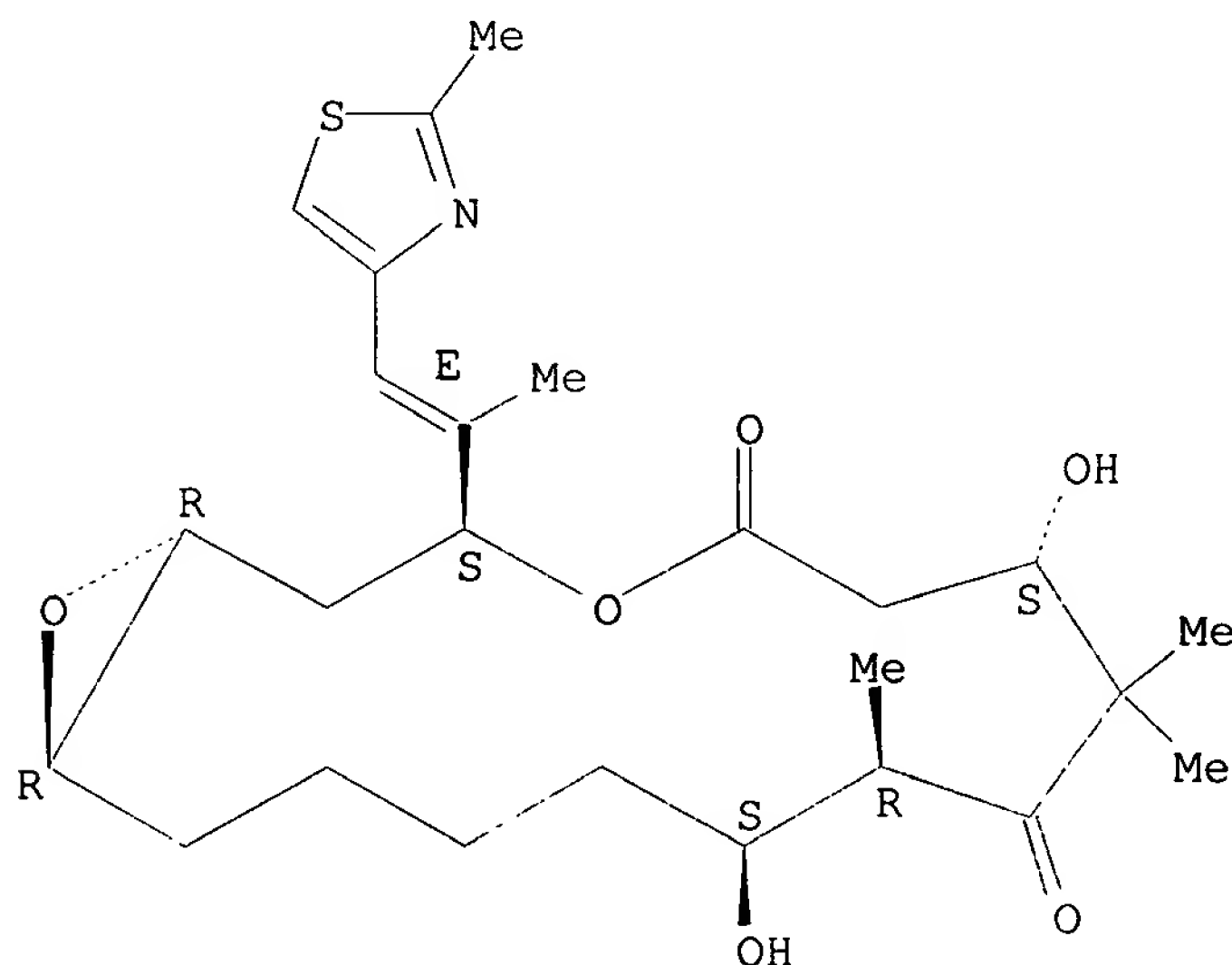


RN 198571-36-7 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10-trimethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10R,11S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

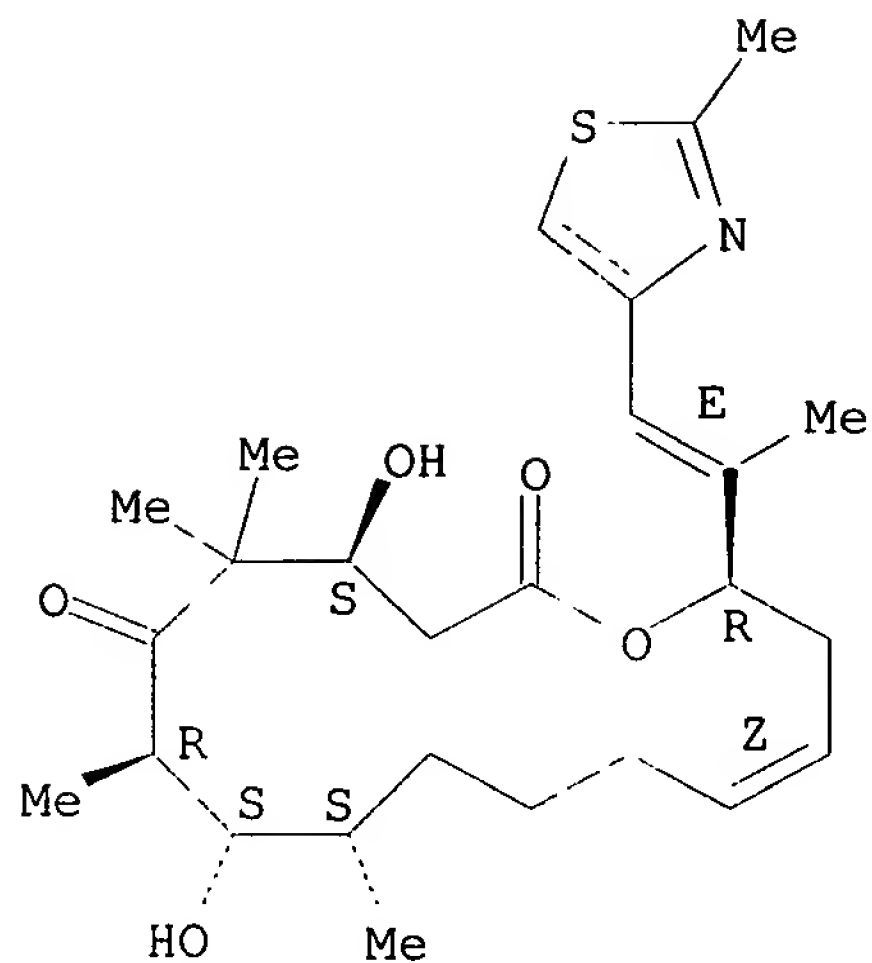


RN 198571-37-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

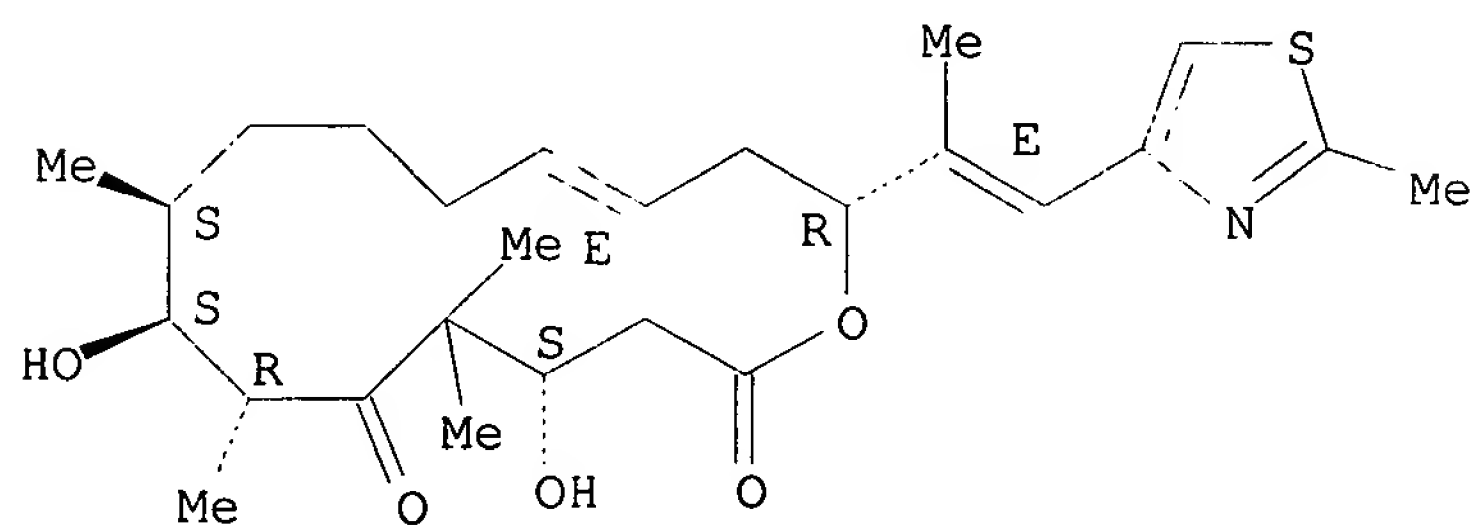
Double bond geometry as shown.



RN 198571-38-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16R)-(9CI) (CA INDEX NAME)

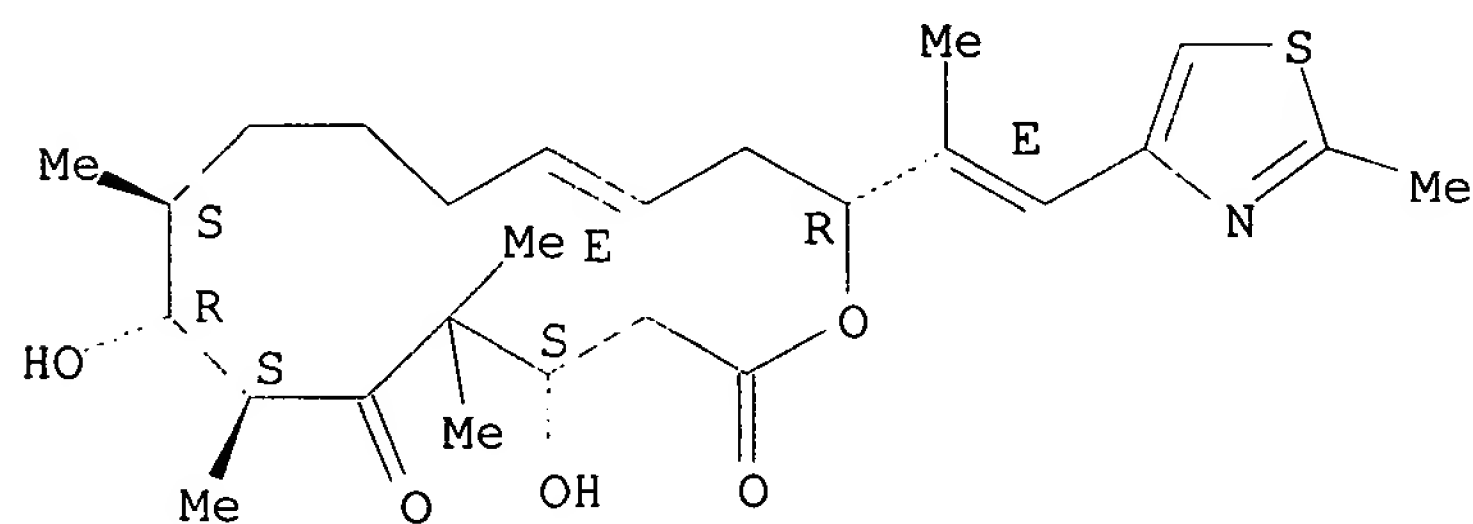
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-39-0 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9S,13E,16R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

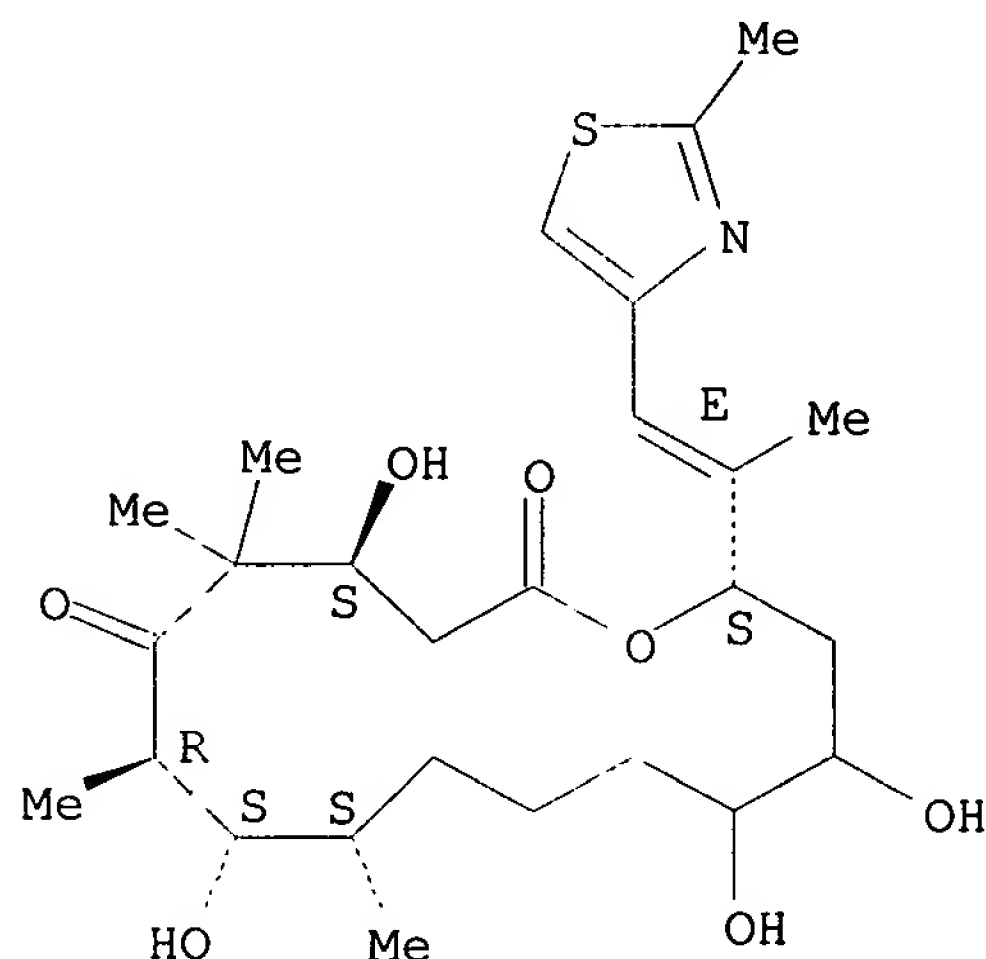


RN 198571-40-3 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 4,8,13,14-tetrahydroxy-5,5,7,9-tetramethyl-

16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,16S)-
(9CI) (CA INDEX NAME)

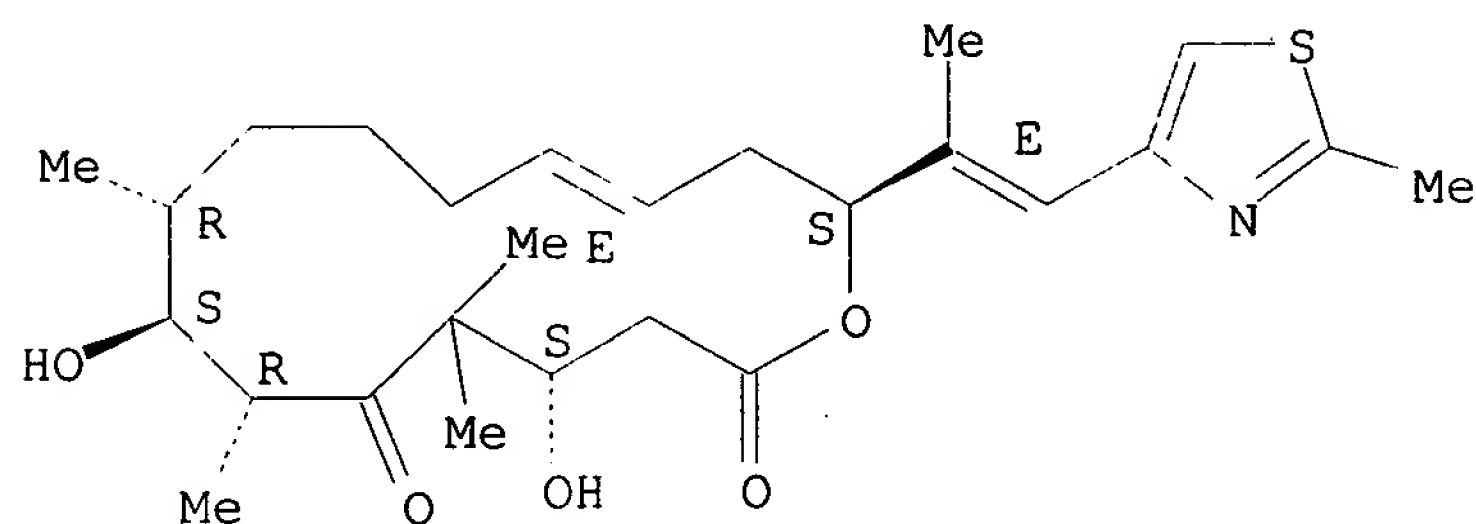
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-66-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9R,13E,16S)-
(9CI) (CA INDEX NAME)

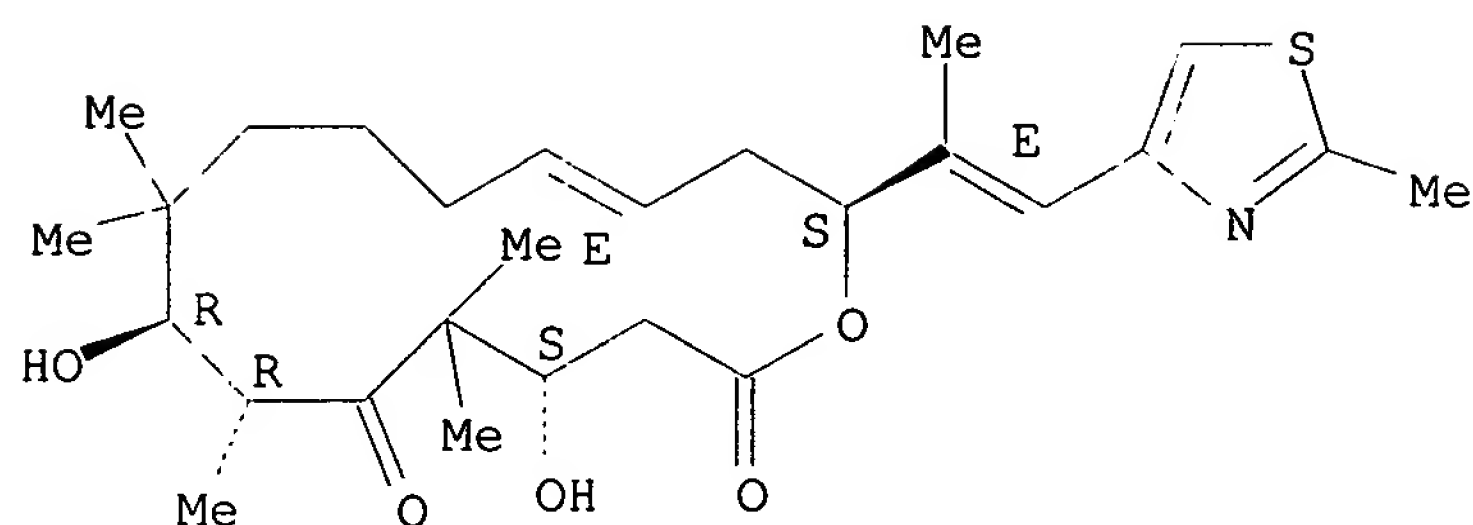
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-67-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8R,13E,16S)-
(9CI) (CA INDEX NAME)

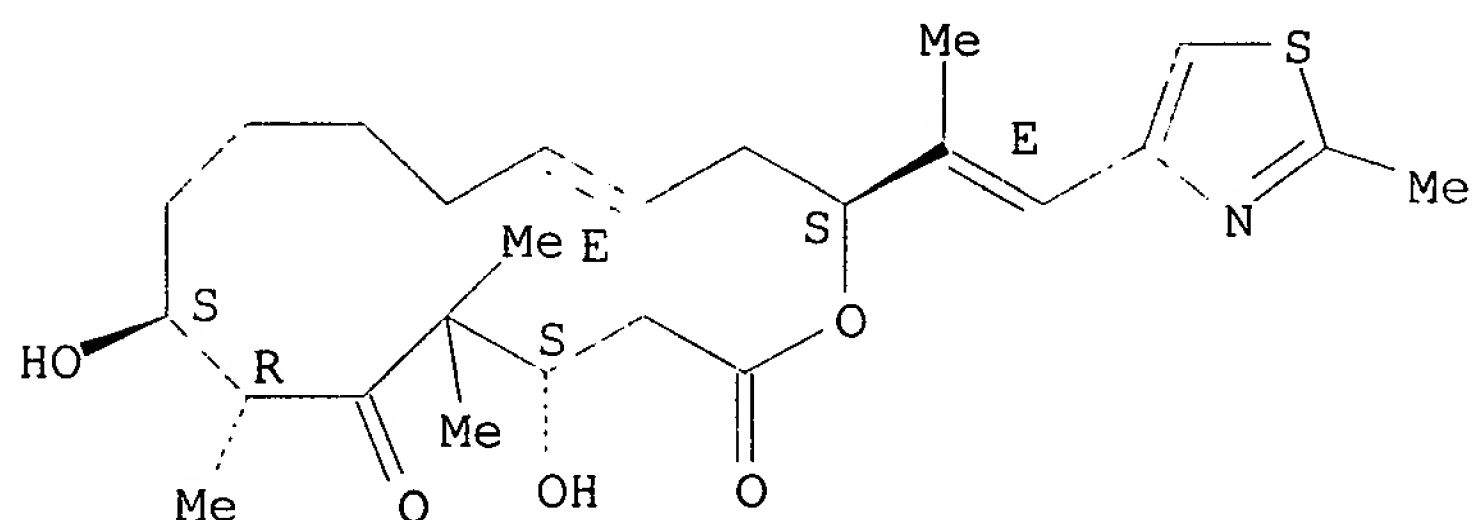
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-68-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7-trimethyl-16-[(1E)-1-
methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,13E,16S)- (9CI) (CA
INDEX NAME)

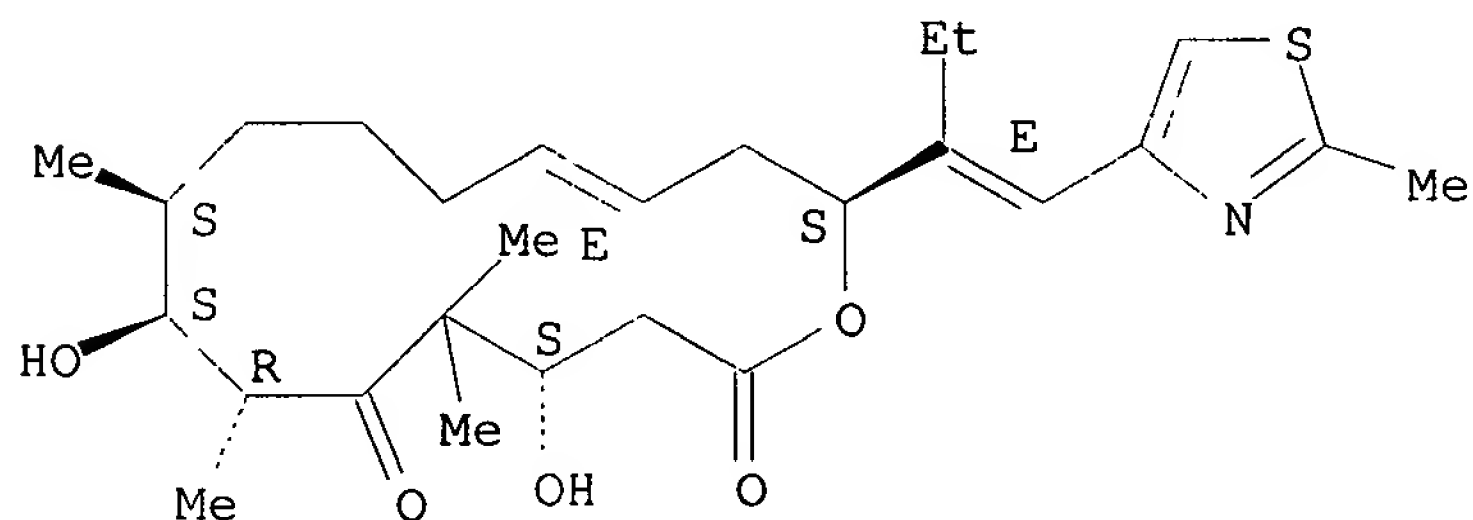
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-69-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-[(2-methyl-4-thiazolyl)methylene]propyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

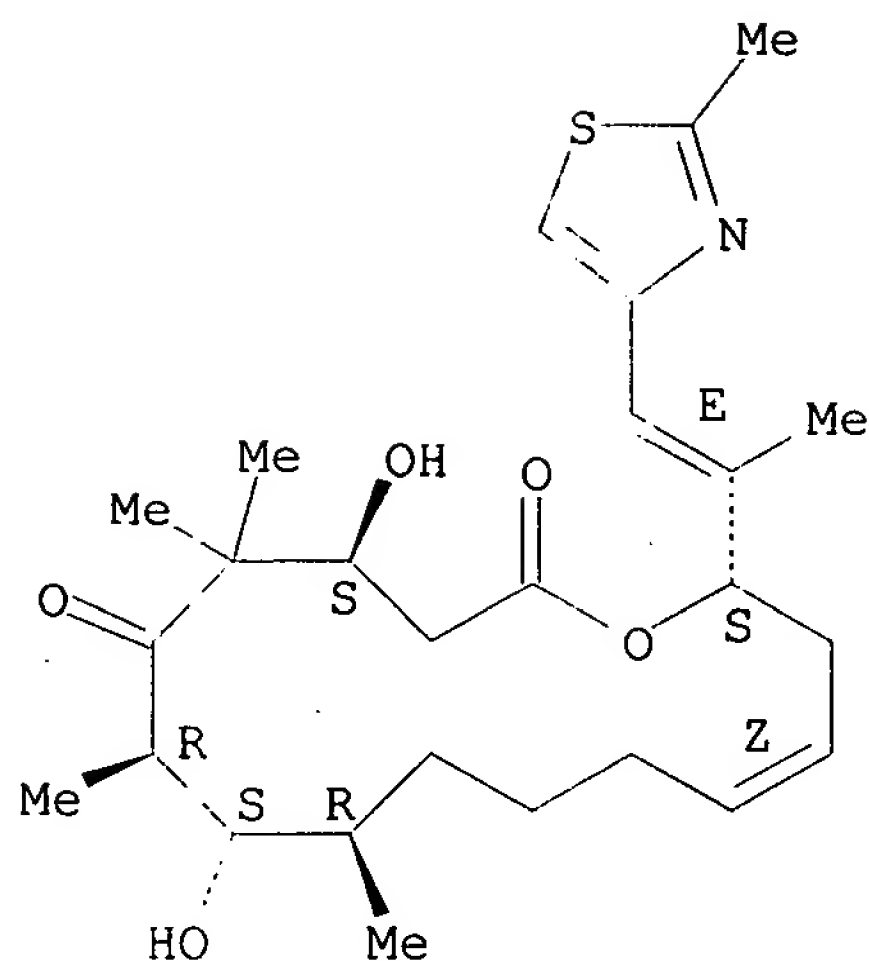
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-70-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9R,13Z,16S)-
(9CI) (CA INDEX NAME)

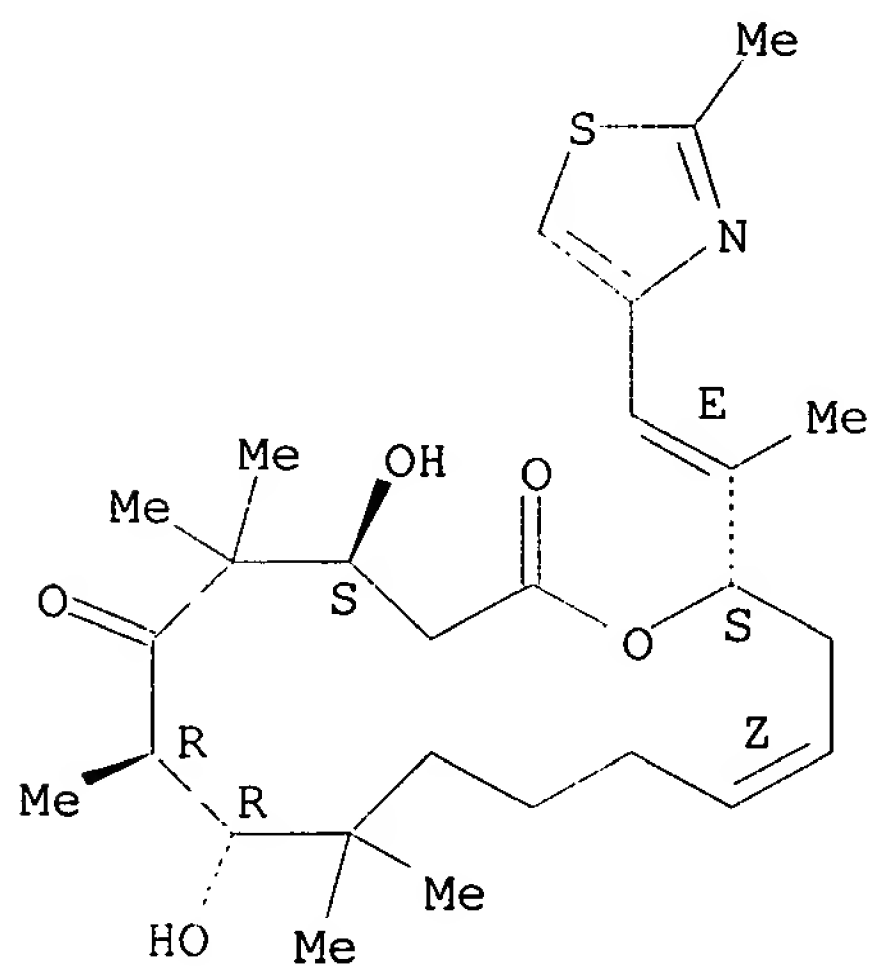
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-71-0 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,9-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8R,13Z,16S)-
(9CI) (CA INDEX NAME)

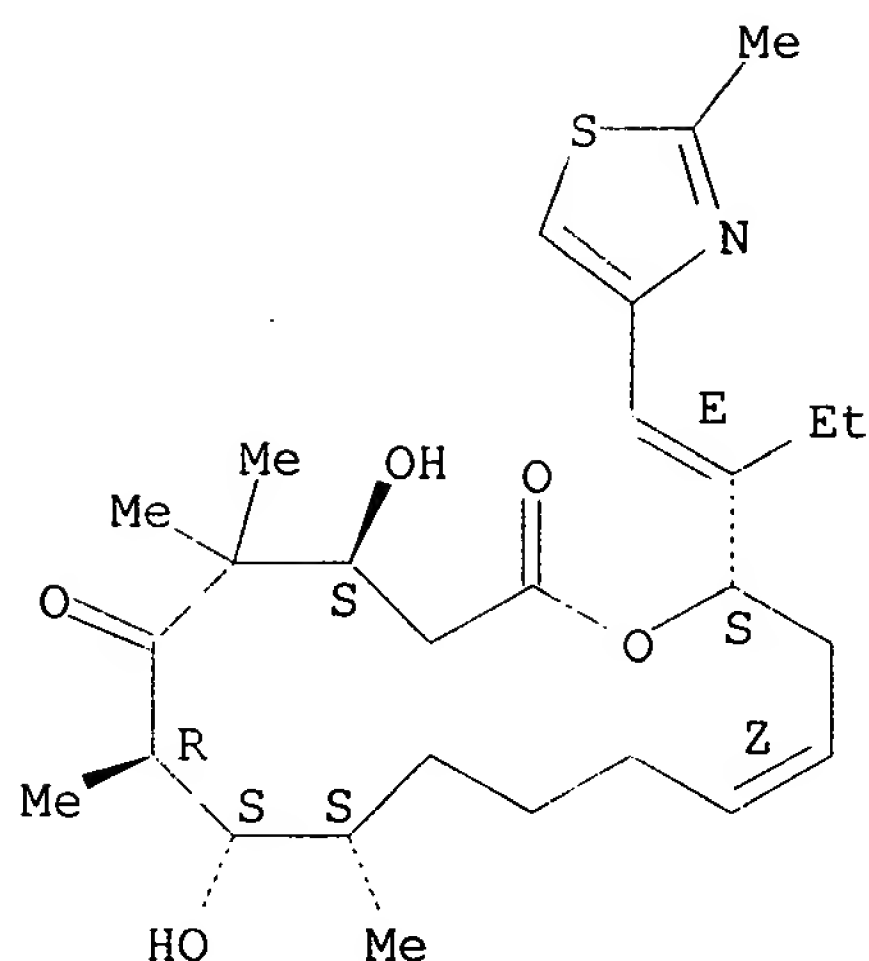
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-72-1 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-[(2-methyl-4-thiazolyl)methylene]propyl]-, (4S,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

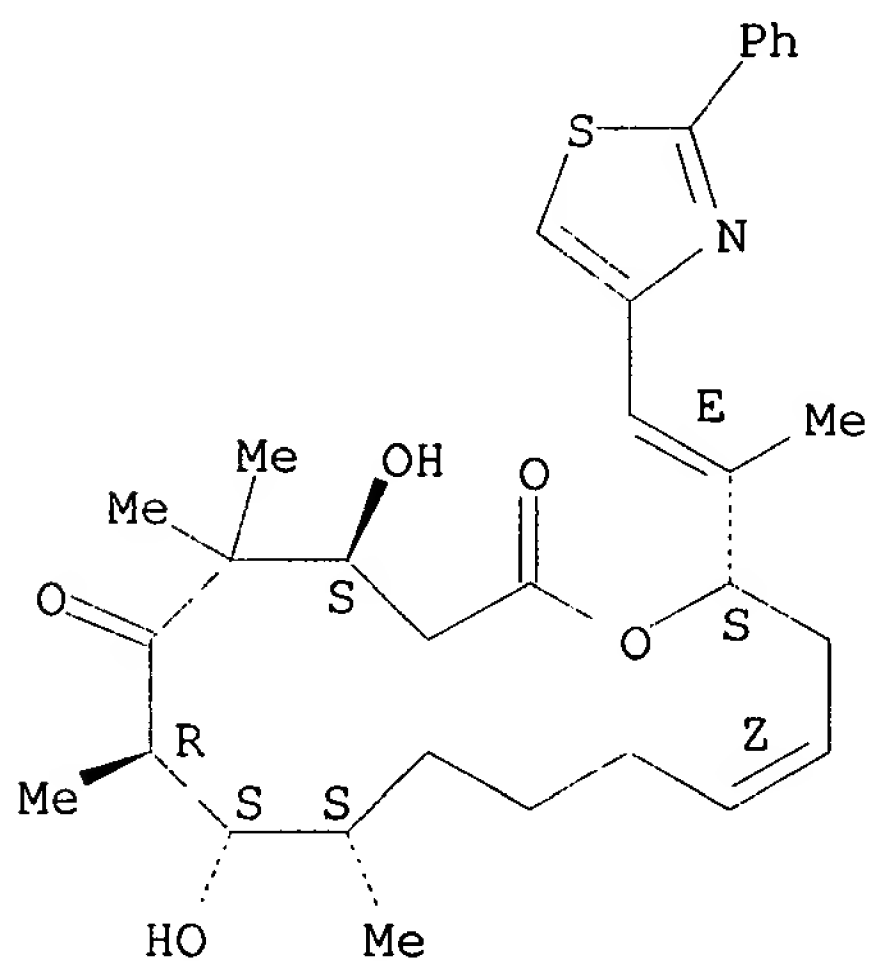
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-73-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-phenyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

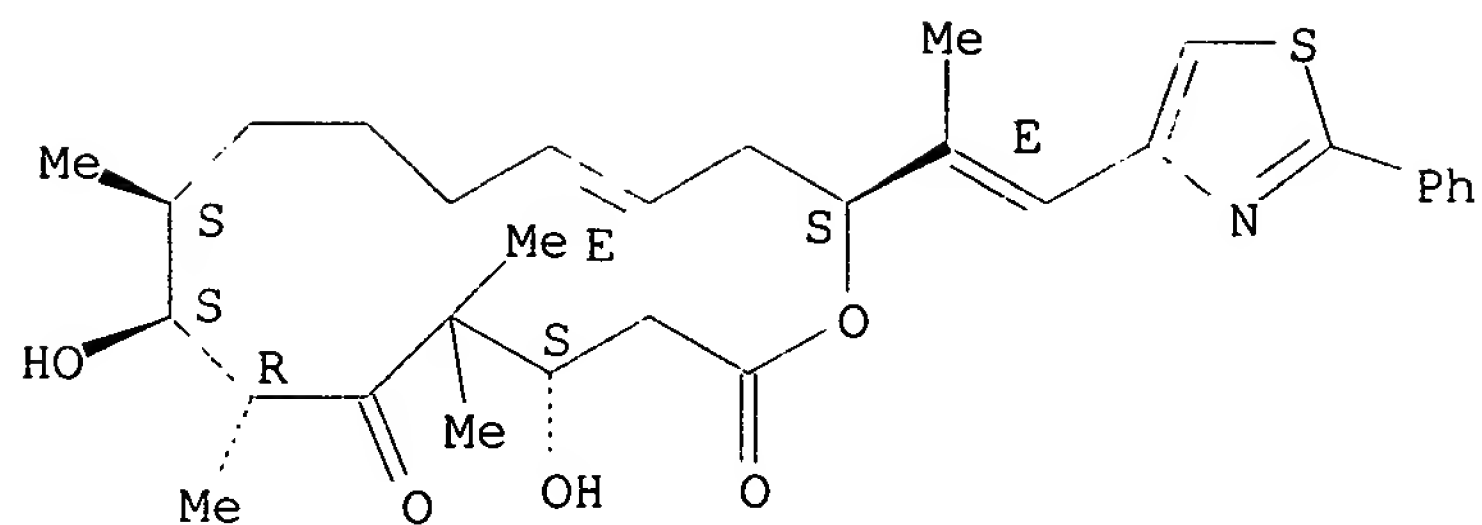
Absolute stereochemistry.
Double bond geometry as shown.



RN 198571-74-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-phenyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

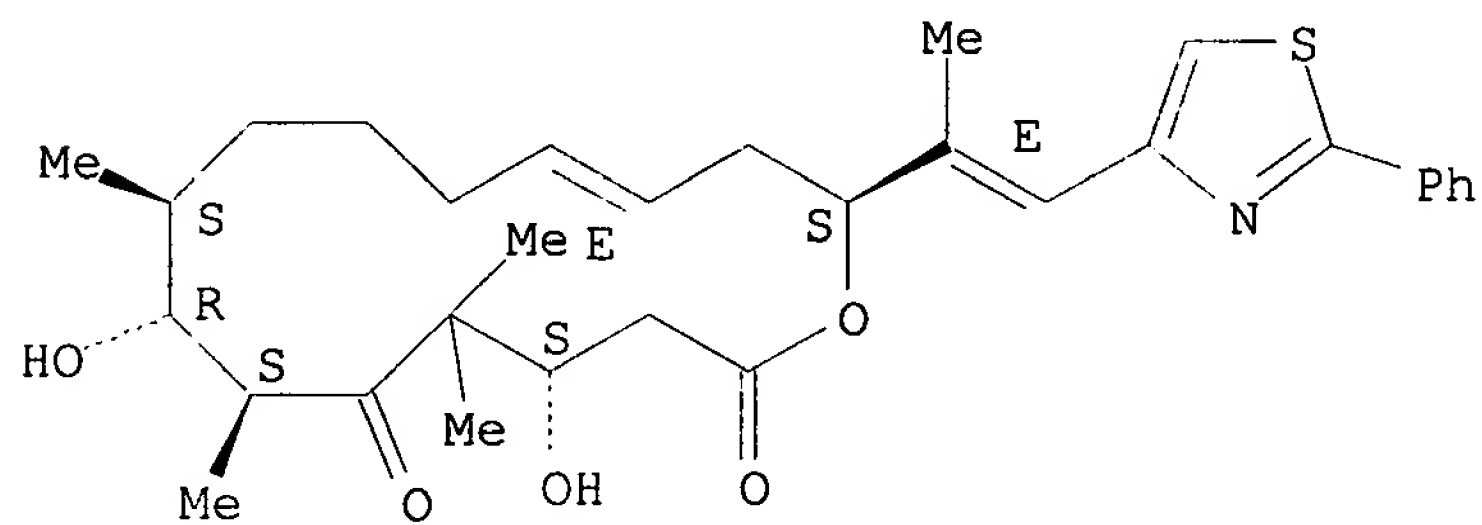


RN 198571-76-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-phenyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

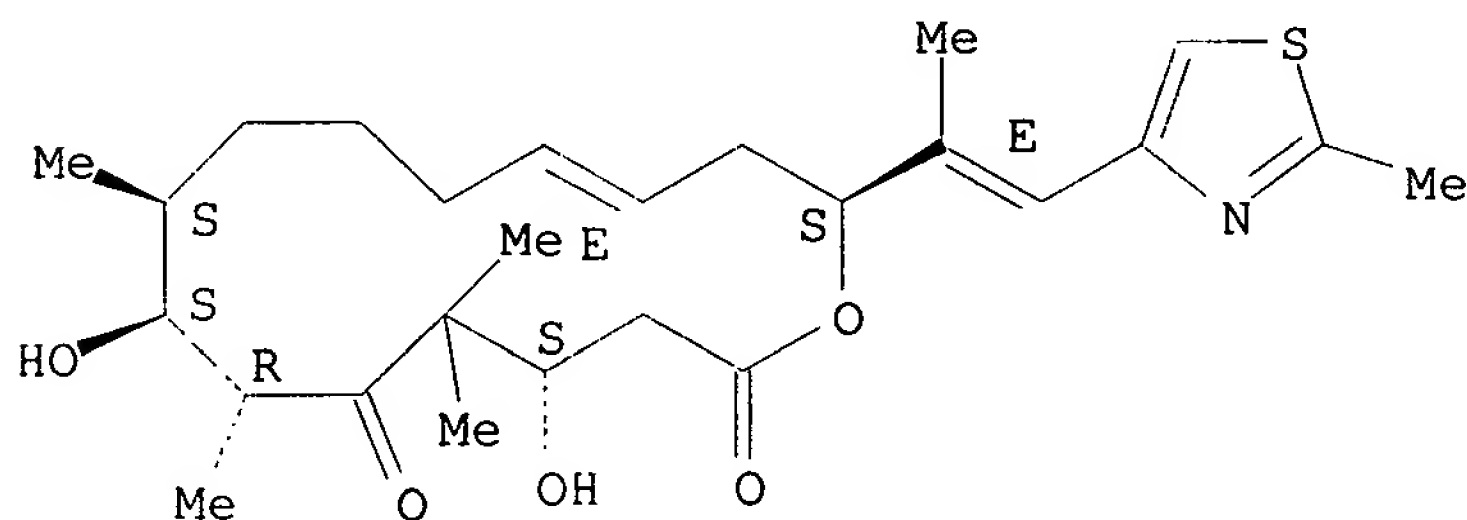
Double bond geometry as shown.



=> D BIB ABS HITSTR 19

L20 ANSWER 19 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1997:714314 CAPLUS
DN 127:358730
TI Structure-activity relationships of the epothilones and the first in vivo comparison with paclitaxel
AU Su, Dai-Shi; Balog, Aaron; Meng, Dongfang; Bertinato, Peter; Danishefsky, Samuel J.; Zheng, Yu-Huang; Chou, Ting-Chao; He, Lifeng; Horwitz, Susan B.
CS Laboratory for Bioorganic Chemistry, Sloan-Kettering Institute for Cancer Research, New York, NY, 10021, USA *Oct*
SO Angew. Chem., Int. Ed. Engl. (1997), 36(19), 2093-2096
CODEN: ACIEAY; ISSN: 0570-0833
PB Wiley-VCH
DT Journal
LA English
AB The structure-activity relationships of the epothilones and 18 derivs. and analogs were studied. An in vivo comparison of the chemotherapeutic effect of epothilone B with that of paclitaxel was also studied. The chemotherapeutic effect of daily doses of epothilone B (0.7 mg/kg) and paclitaxel (2 mg/kg) in CB-17 SCID mice bearing drug-resistant human CCRF-CEM/VBL xenografts were T/C = 0.33 and T/C = 0.70, resp.
IT 188260-10-8 189453-40-5 198475-04-6
198475-05-7 198475-06-8 198475-07-9
198475-08-0 198475-09-1 198475-10-4
198475-11-5 198475-18-2 198475-19-3
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(structure-activity relationships of the epothilones and in vivo comparison with paclitaxel)
RN 188260-10-8 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-(9CI) (CA INDEX NAME)

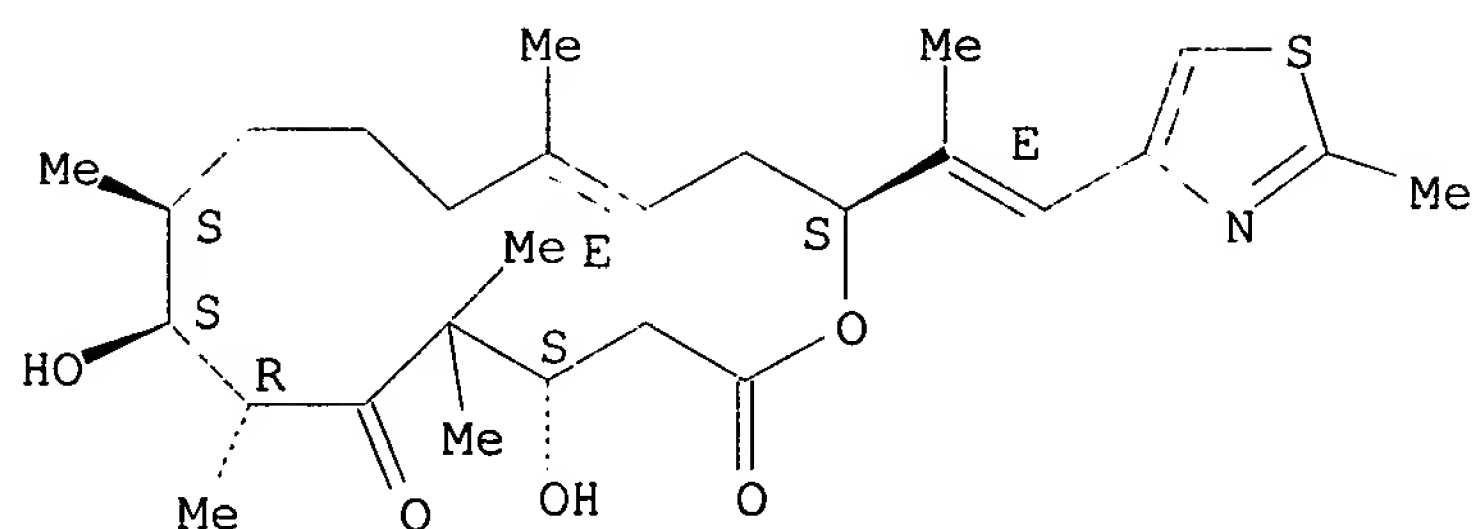
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 189453-40-5 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

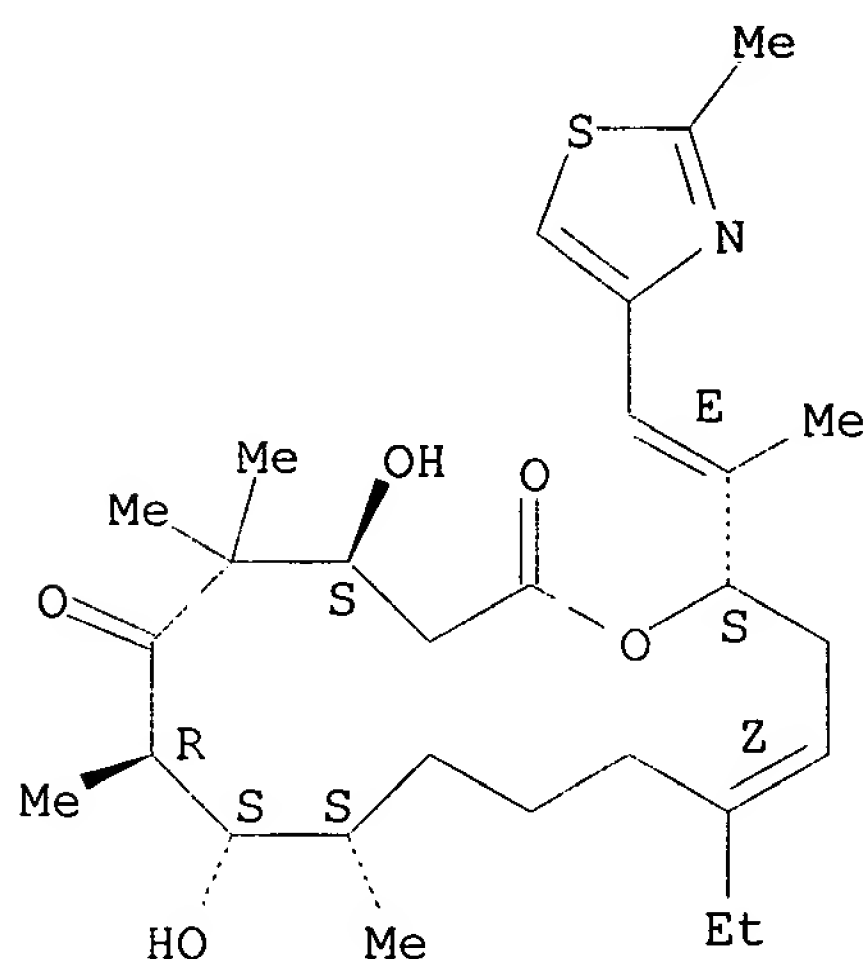


RN 198475-04-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-ethyl-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

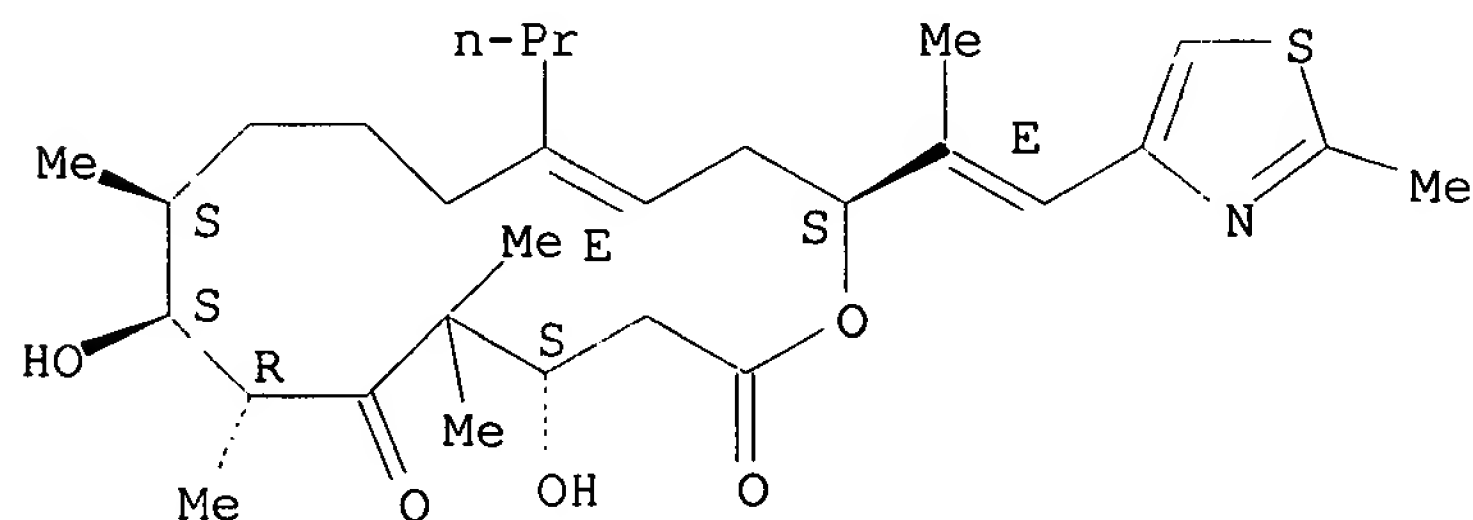


RN 198475-05-7 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-propyl-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

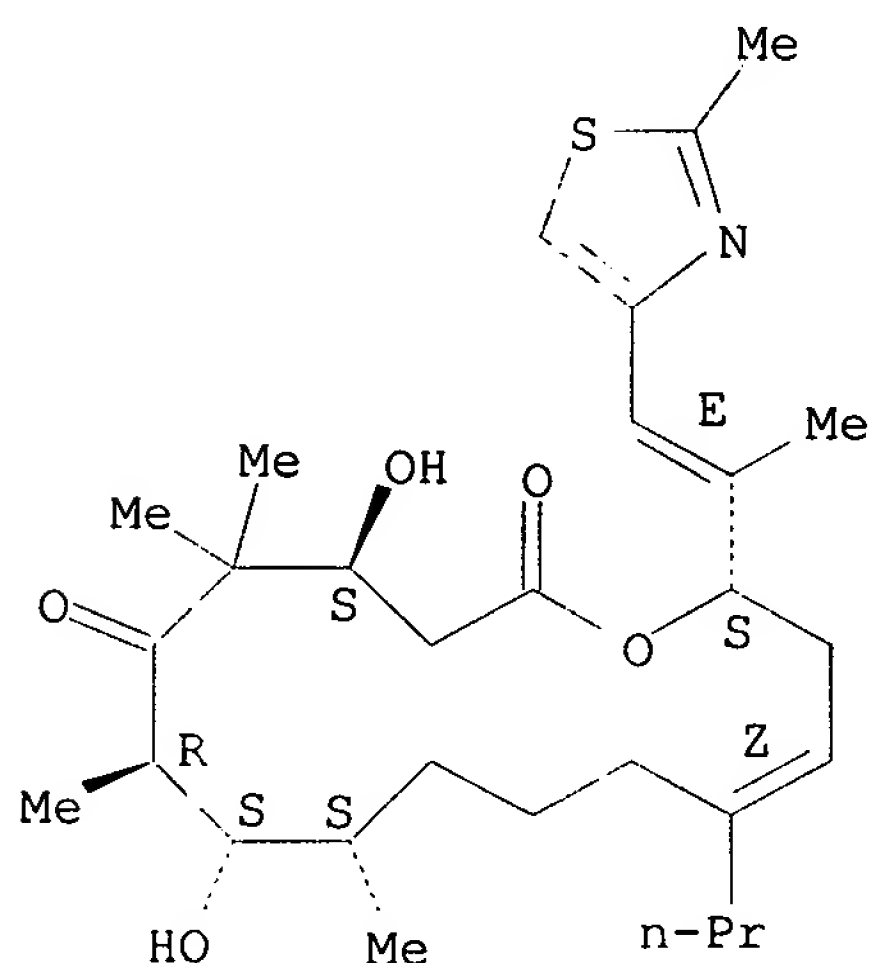


RN 198475-06-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-13-propyl-,
(4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

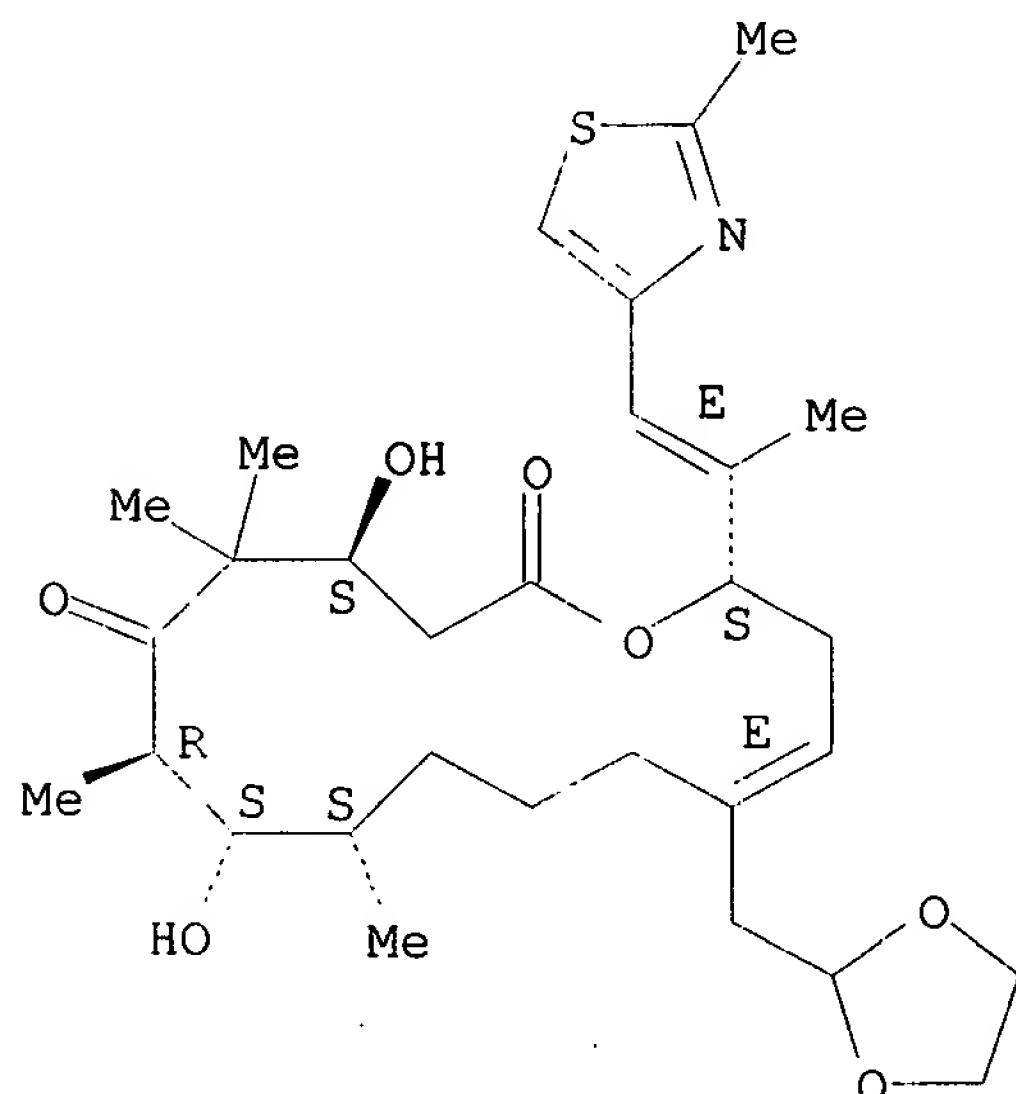


RN 198475-07-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-(1,3-dioxolan-2-ylmethyl)-4,8-
dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

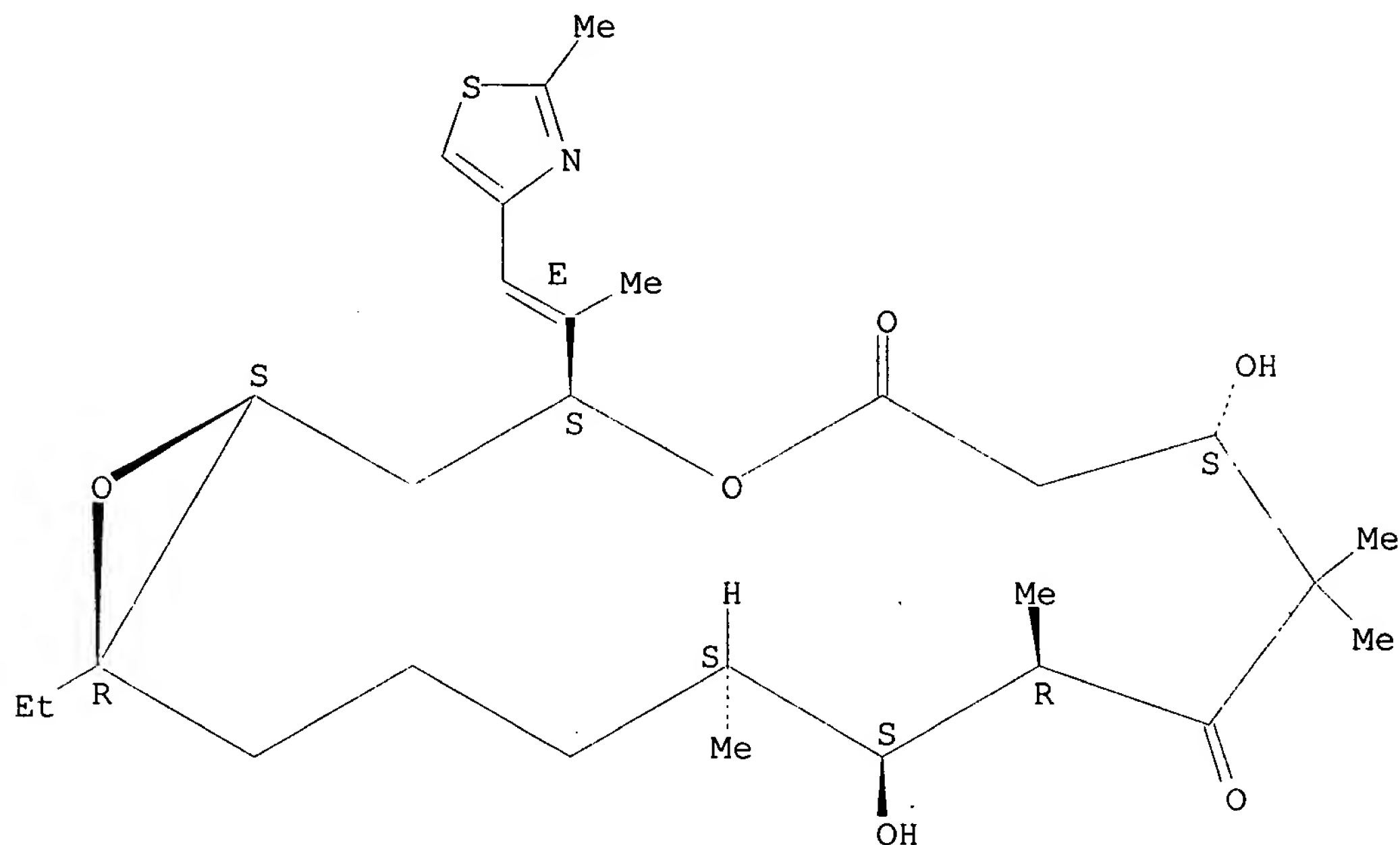


RN 198475-08-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-ethyl-7,11-dihydroxy-

8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

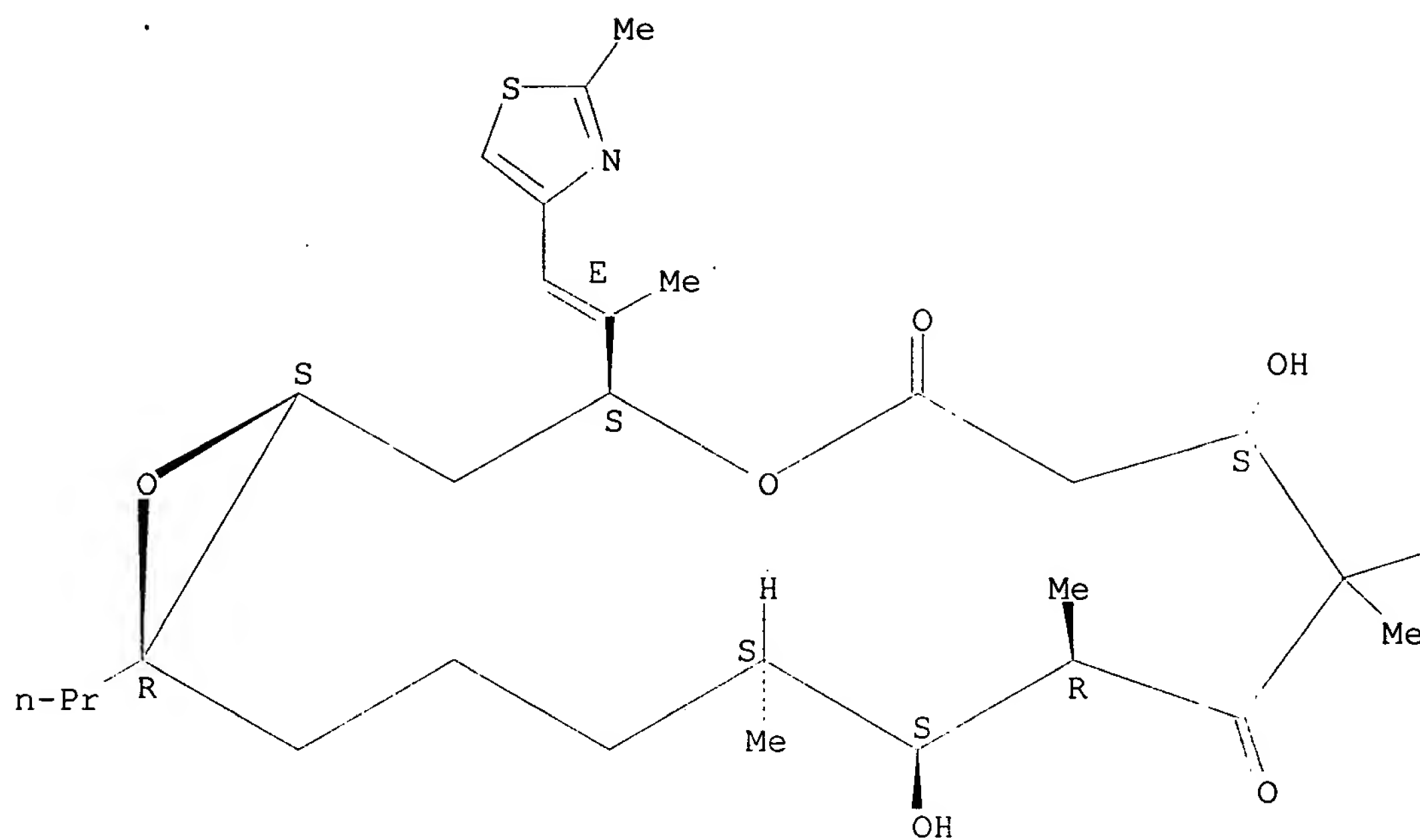


RN 198475-09-1 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-propyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

Me

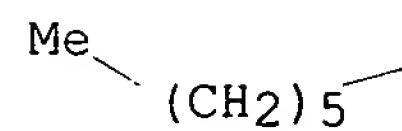
RN 198475-10-4 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 16-hexyl-7,11-dihydroxy-
8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16R)-(9CI) (CA INDEX NAME)

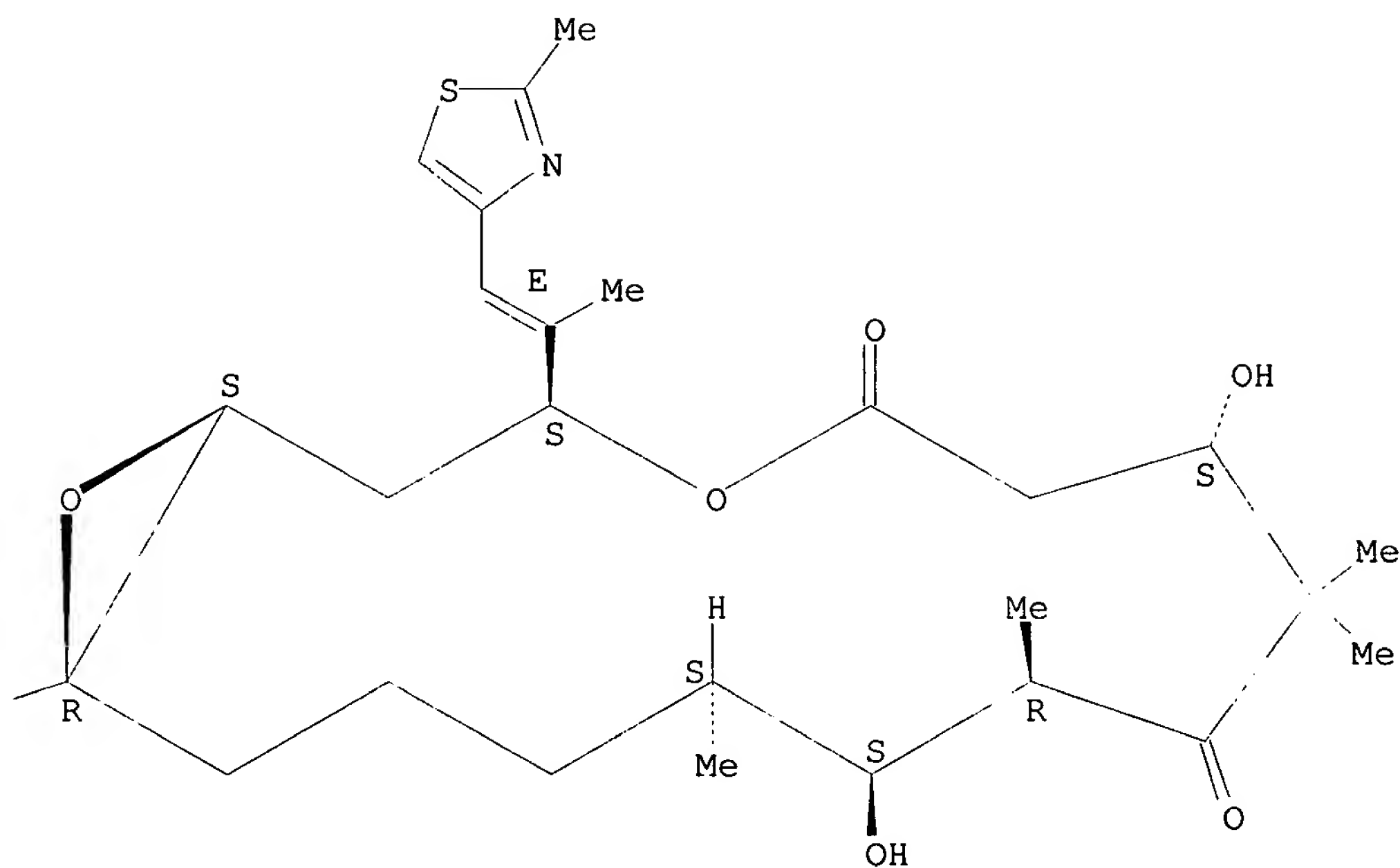
Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A



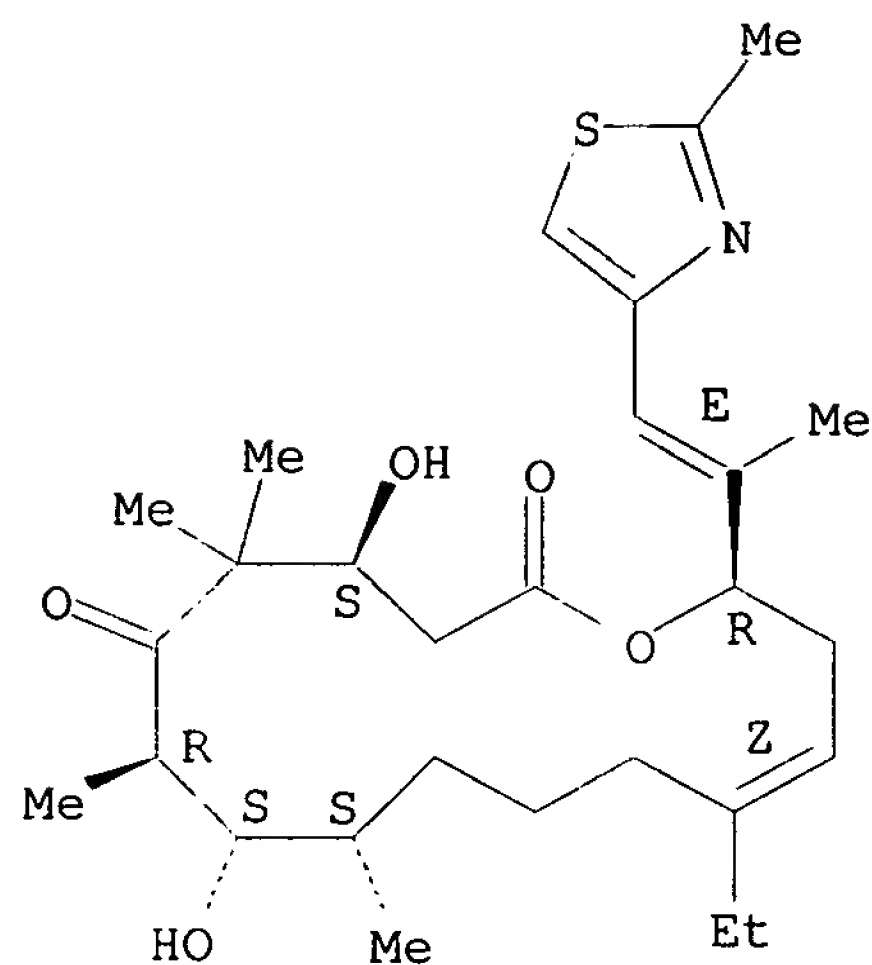
PAGE 1-B



RN 198475-11-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-ethyl-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16R)- (9CI) (CA INDEX NAME)

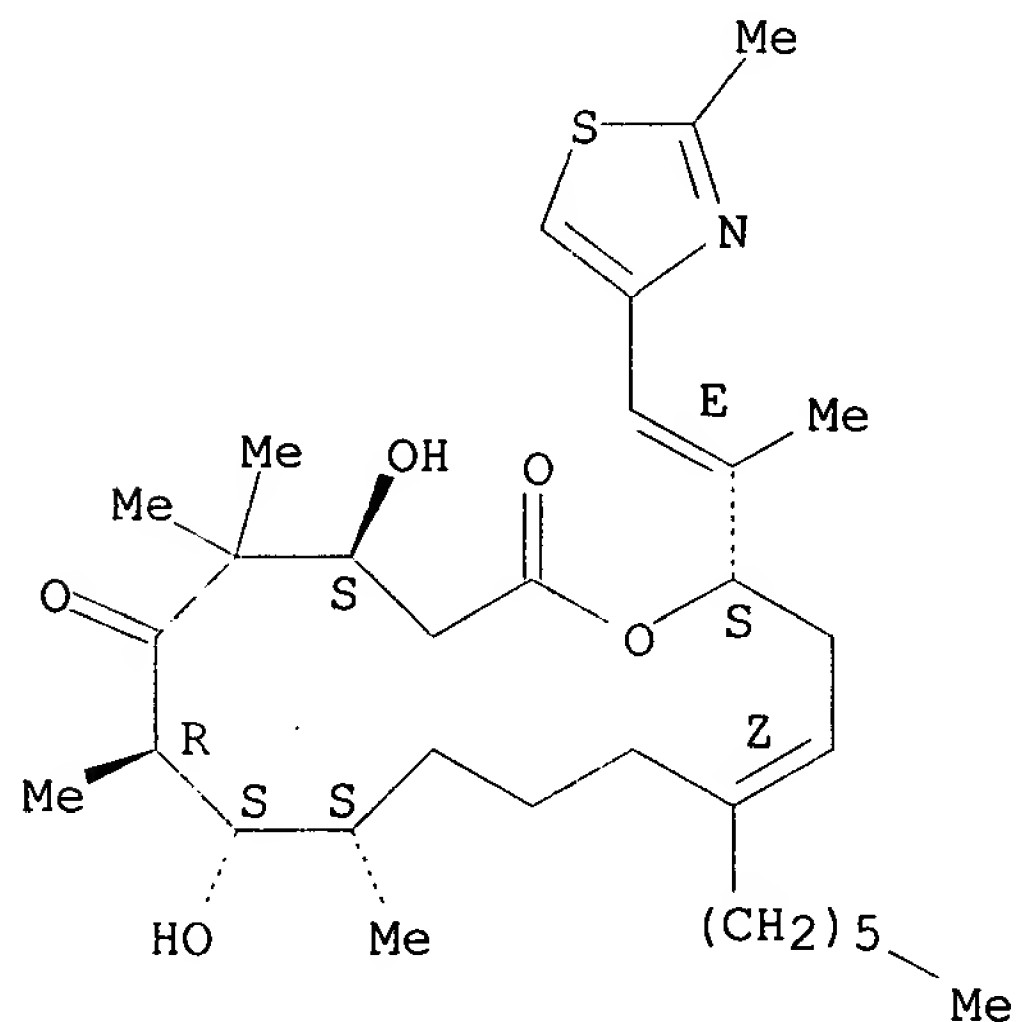
Absolute stereochemistry.
Double bond geometry as shown.



RN 198475-18-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 13-hexyl-4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

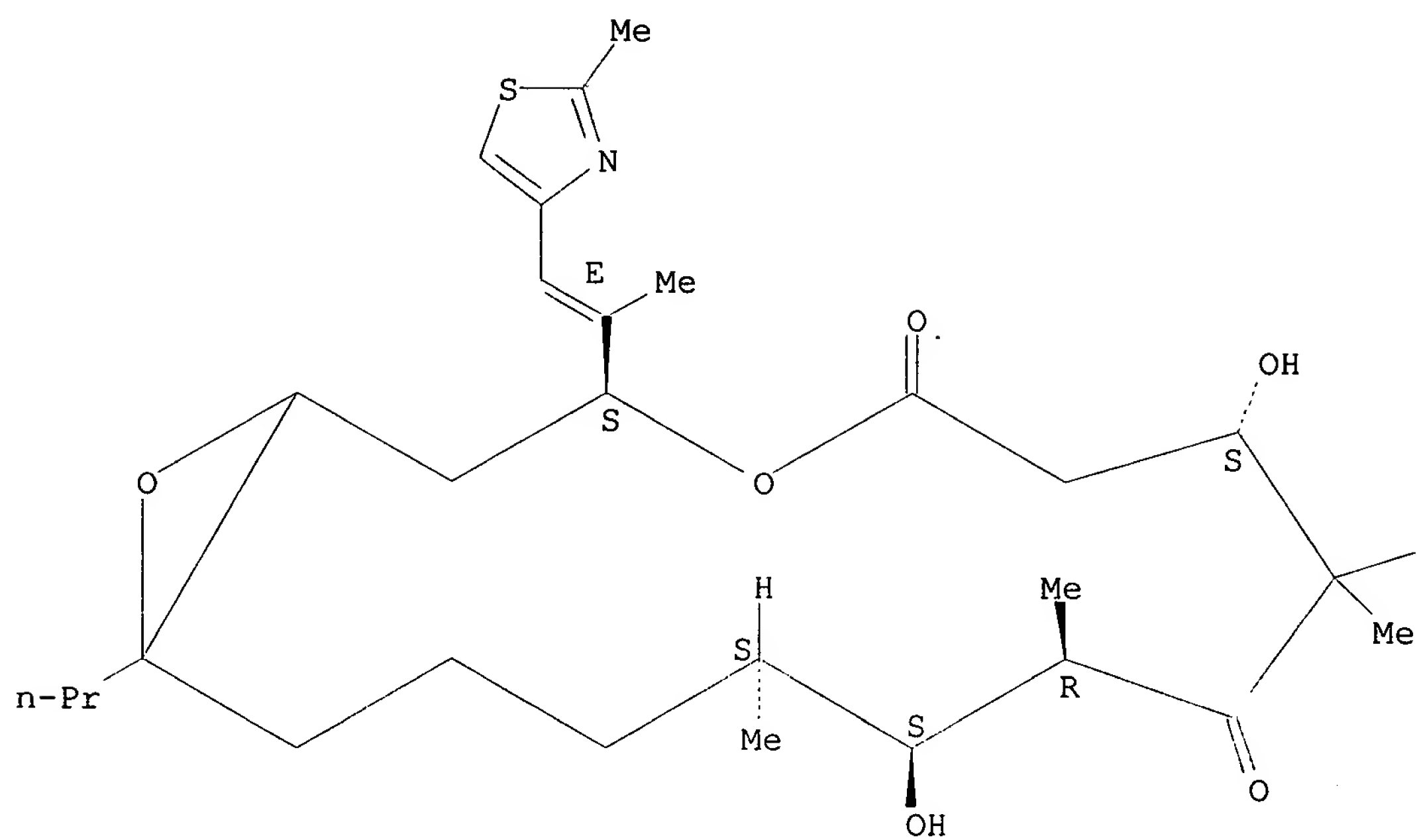


RN 198475-19-3 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-16-propyl-, [3S(E),7S,10R,11S,12S]-[partial]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A

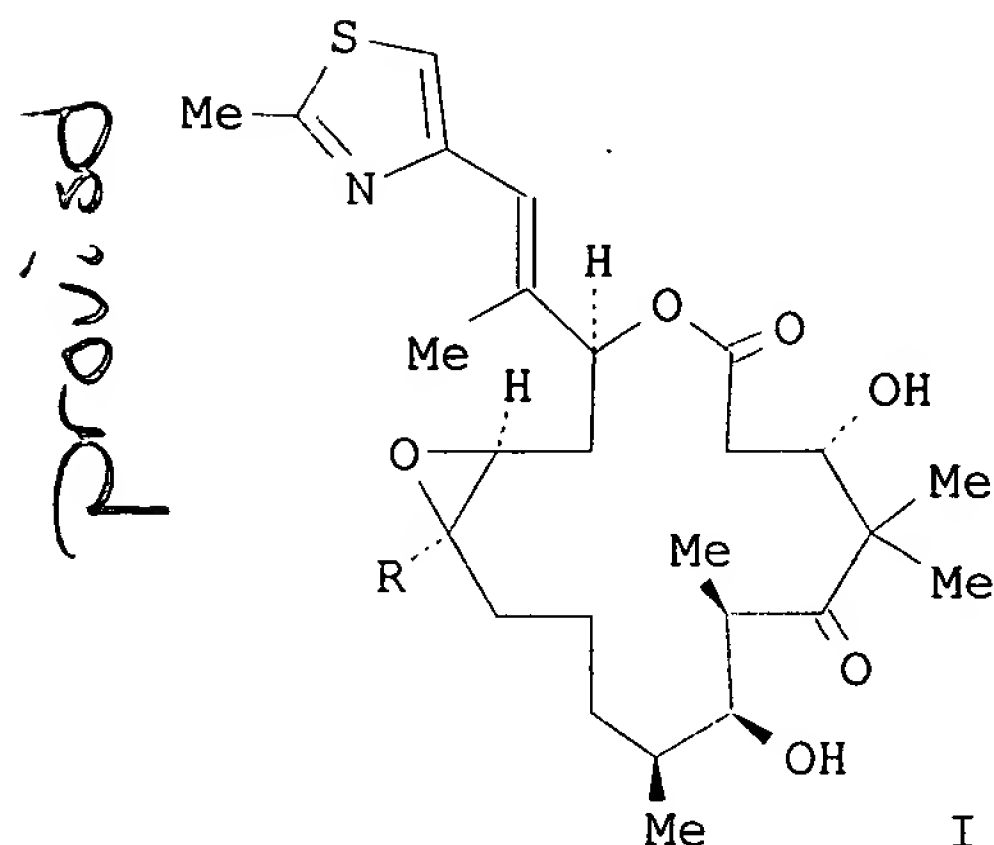


PAGE 1-B

Me

=> D BIB ABS HITSTR 20

L20 ANSWER 20 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1997:665094 CAPLUS
DN 127:293040
TI Total Syntheses of Epothilones A and B
AU Meng, Dongfang; Bertinato, Peter; Balog, Aaron; Su, Dai-Shi; Kamenecka, Ted; Sorensen, Erik; Danishefsky, Samuel J.
CS Laboratory for Bioorganic Chemistry, Sloan-Kettering Institute for Cancer Research, New York, NY, 10021, USA
SO J. Am. Chem. Soc. (1997), 119(42), 10073-10092
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 127:293040
GI



AB Convergent, stereocontrolled total syntheses of the microtubule-stabilizing macrolides epothilones A (I; R = H) and B (I; R = Me) have been achieved. Four distinct ring-forming strategies were pursued. Of these four, three were reduced to practice. In one approach, the action of a base on a substance possessing an acetate ester and a nonenolizable aldehyde brought about a remarkably effective macroaldolization simultaneously creating the C2-C3 bond and the hydroxyl-bearing stereocenter at C-3. Alternatively, the 16-membered macrolide of the epothilones could be fashioned through a C12-C13 ring-closing olefin metathesis and through macrolactonization of the appropriate hydroxy acid.

The application of a stereospecific B-alkyl Suzuki coupling strategy permitted the establishment of a cis C12-C13 olefin, thus setting the stage for an eventual site- and diastereoselective epoxidn. reaction.

The development of a novel cyclopropane solvolysis strategy for incorporating the geminal Me groups of the epothilones, and the use of Lewis acid catalyzed diene-aldehyde cyclocondensation (LACDAC) and asym. allylation methodol. are also noteworthy.

IT 188259-95-2P, 3-epi-Desoxyepothilone A
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

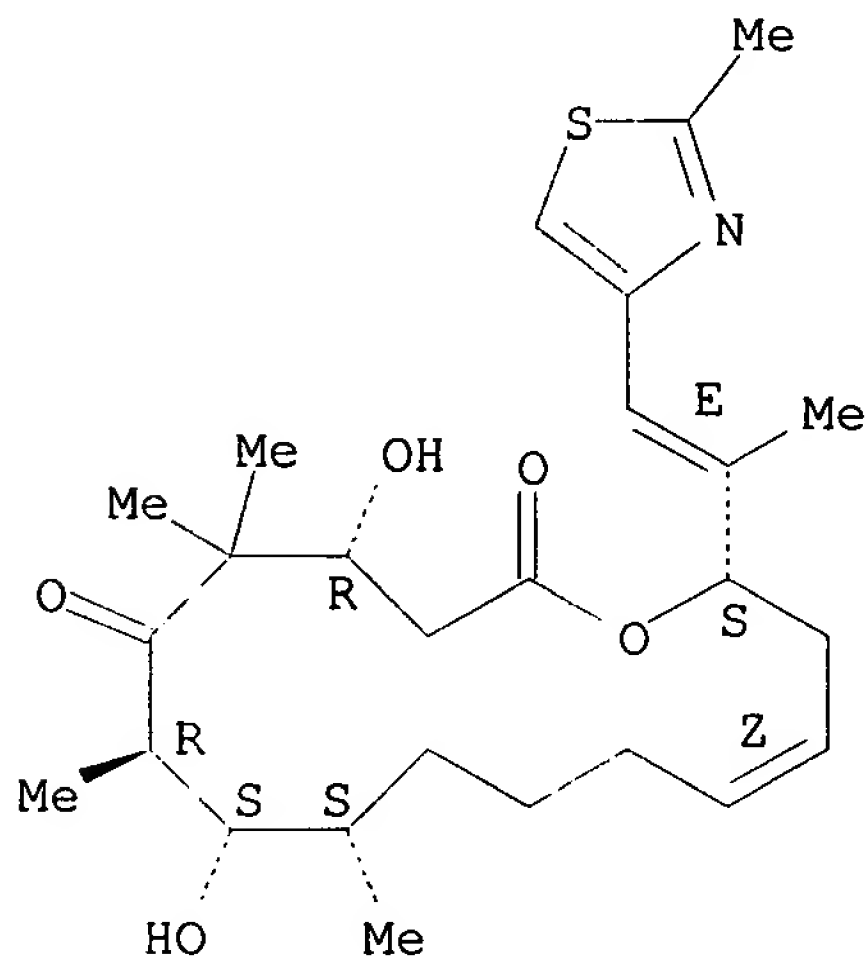
(syntheses of epothilones A and B via macroaldolization, olefin metathesis and macrolactonization)

RN 188259-95-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8S,9S,13Z,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.



IT 188260-09-5P, 3-epi-Epothilone A 188260-10-8P

189453-40-5P, (E)-Desoxyepothilone B

RL: SPN (Synthetic preparation); PREP (Preparation)

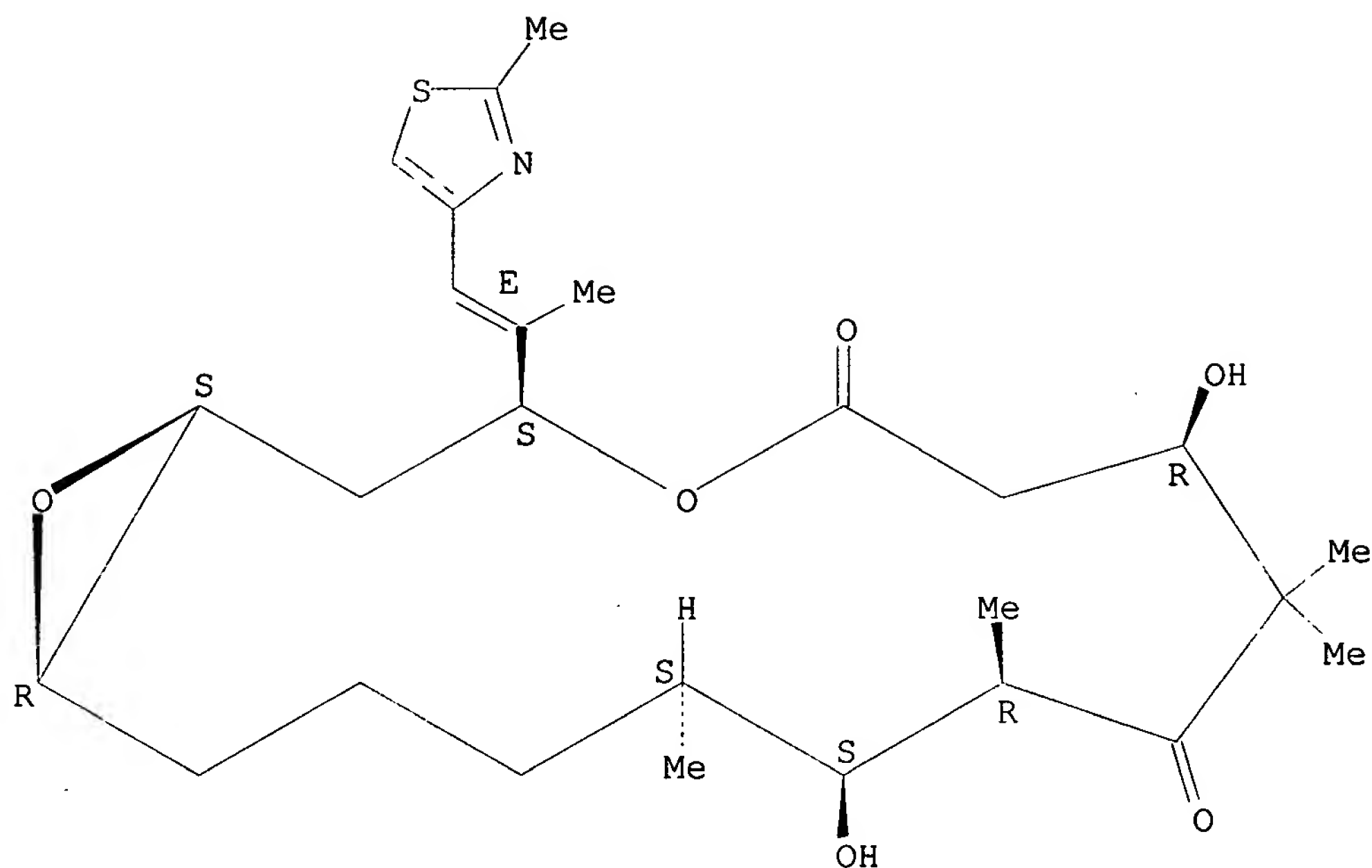
(syntheses of epothilones A and B via macroaldolization, olefin metathesis and macrolactonization)

RN 188260-09-5 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7R,10R,11S,12S,16R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

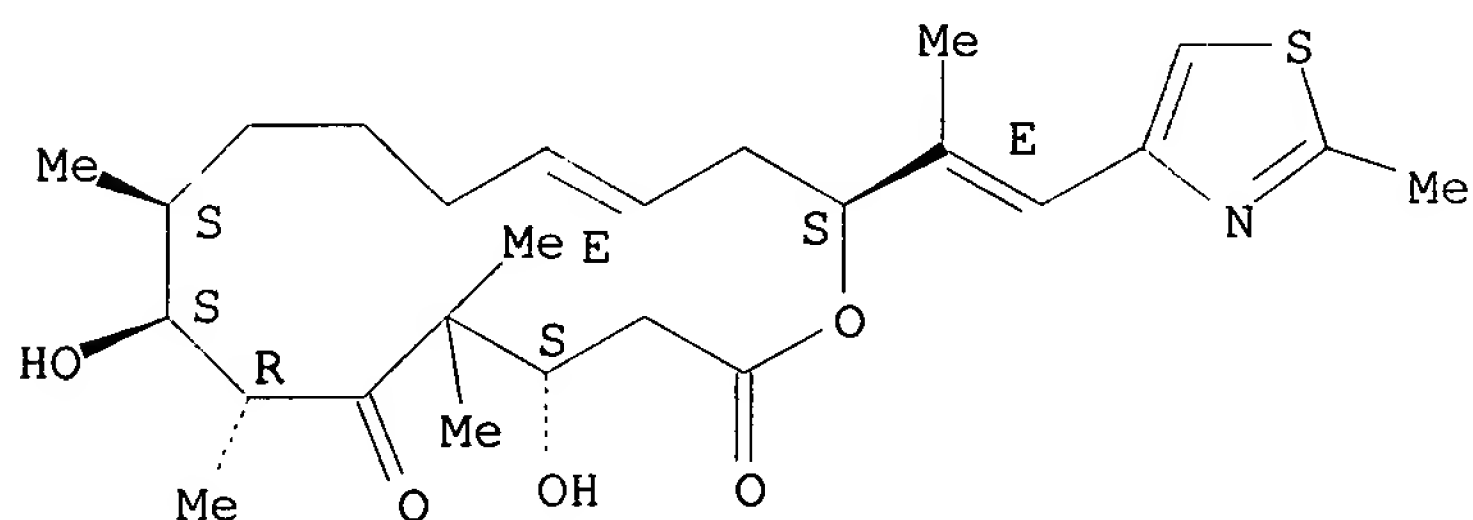
Double bond geometry as shown.



RN 188260-10-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-(9CI) (CA INDEX NAME)

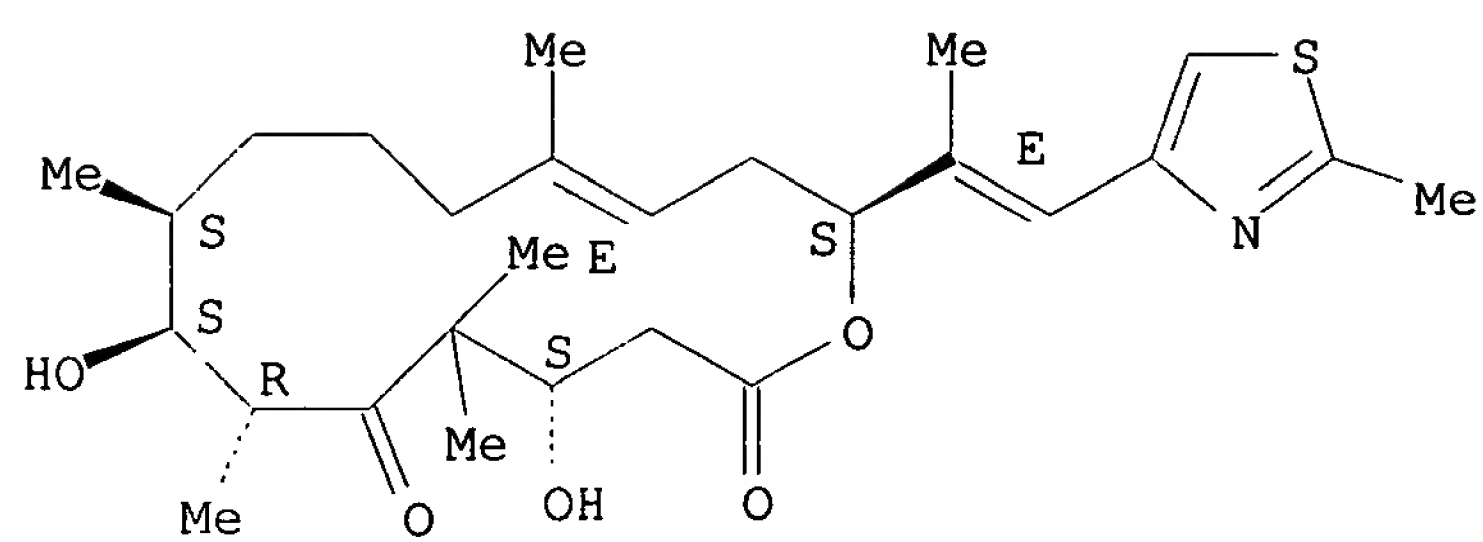
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 189453-40-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



=> D BIB ABS HITSTR 21

PROVISE
120 ANSWER 21 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1997:528753 CAPLUS
DN 127:135660
TI Total Syntheses of Epothilones A and B via a Macrolactonization-Based Strategy
AU Nicolaou, K. C.; Ninkovic, S.; Sarabia, F.; Vourloumis, D.; He, Y.; Vallberg, H.; Finlay, M. R. V.; Yang, Z.
CS Department of Chemistry and The Skaggs, Institute for Chemical Biology, La Jolla, CA, 92037, USA
SO J. Am. Chem. Soc. (1997), 119(34), 7974-7991
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 127:135660
GI

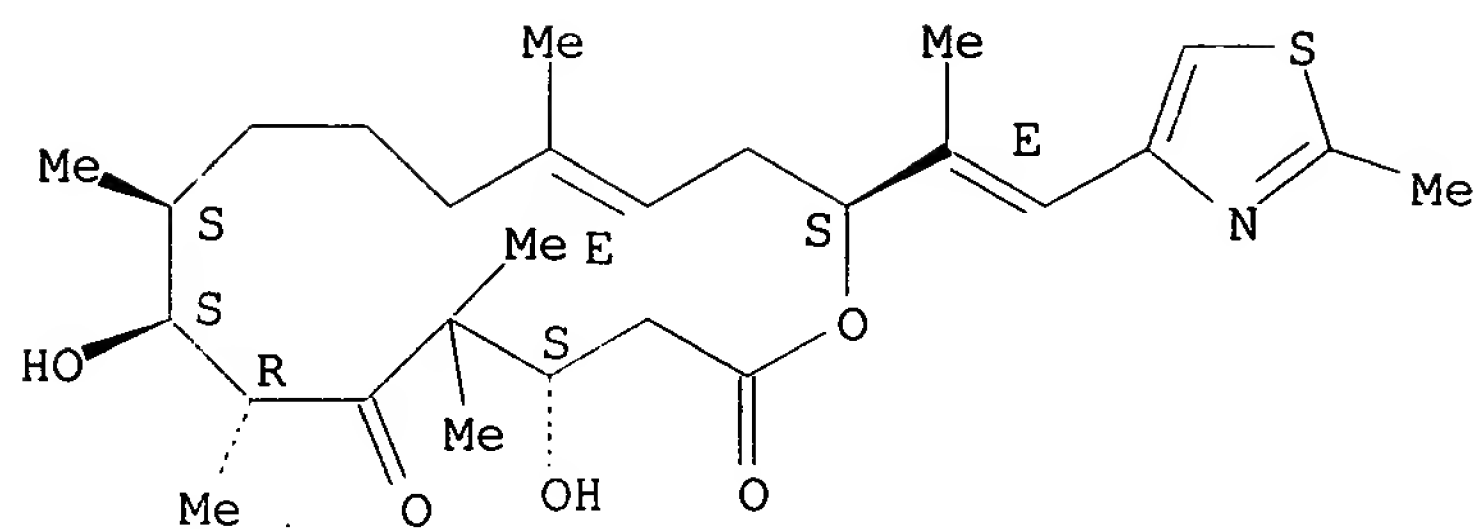
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The total syntheses of epothilones A (I) (R = H) and B I (R = Me) and several analogs are described. The reported strategy relies on a macrolactonization approach and features selective epoxidn. of the macrocycle double bond in precursors II (R = H, Me) as well as high convergency and flexibility. Building blocks (S)-MeCH₂COC(Me)₂CH(OSiMe₂CMe₃)CH₂CO₂H, (S)-Me₃CMe₂SiOCH₂CH(Me)CH₂CH₂CH₂COR (R = H, Me), (III) [R₂ = CH₂CH₂P+(Ph)₃I-; CH₂CHO] were constructed by asym. processes and coupled via Wittig, aldol, and macrolactonization reactions to afford the basic skeleton of epothilones and that of several of their analogs by a relatively short route. The utilization of intermediate III [R₂ = (E)-CH₂CH=C(Me)CH₂CH₂CH₂I], obtained via a stereoselective Wittig reaction and its Enders coupling to SAMP hydrazone, in combination with a stereoselective aldol reaction with the modified substrate (S)-MeCH₂COC(Me)₂CH(OSiMe₂CMe₃)CH₂CH₂OSiMe₂CMe₃ improved the stereoselectivity and efficiency of the total synthesis of these new and highly potent microtubule binding antitumor agents.

IT 189453-40-5P 193146-35-9P 193146-36-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(total syntheses of epothilones A and B via a macrolactonization-based strategy)

RN 189453-40-5 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

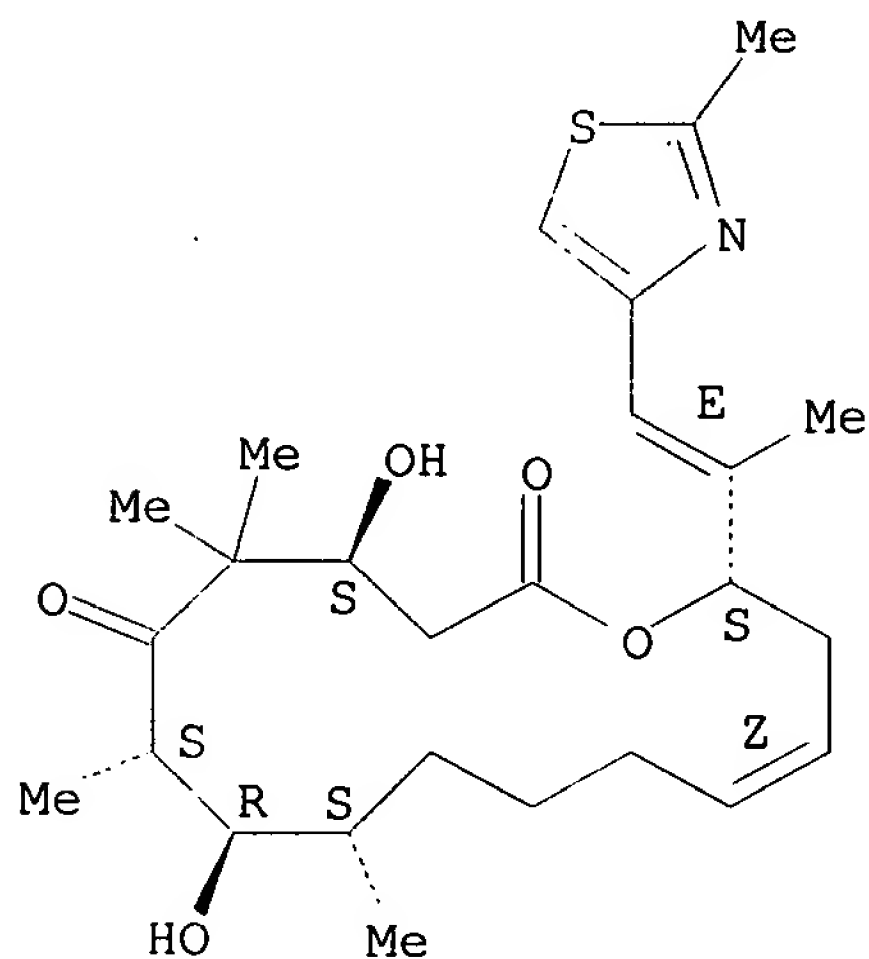
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 193146-35-9 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9S,13Z,16S)-(9CI) (CA INDEX NAME)

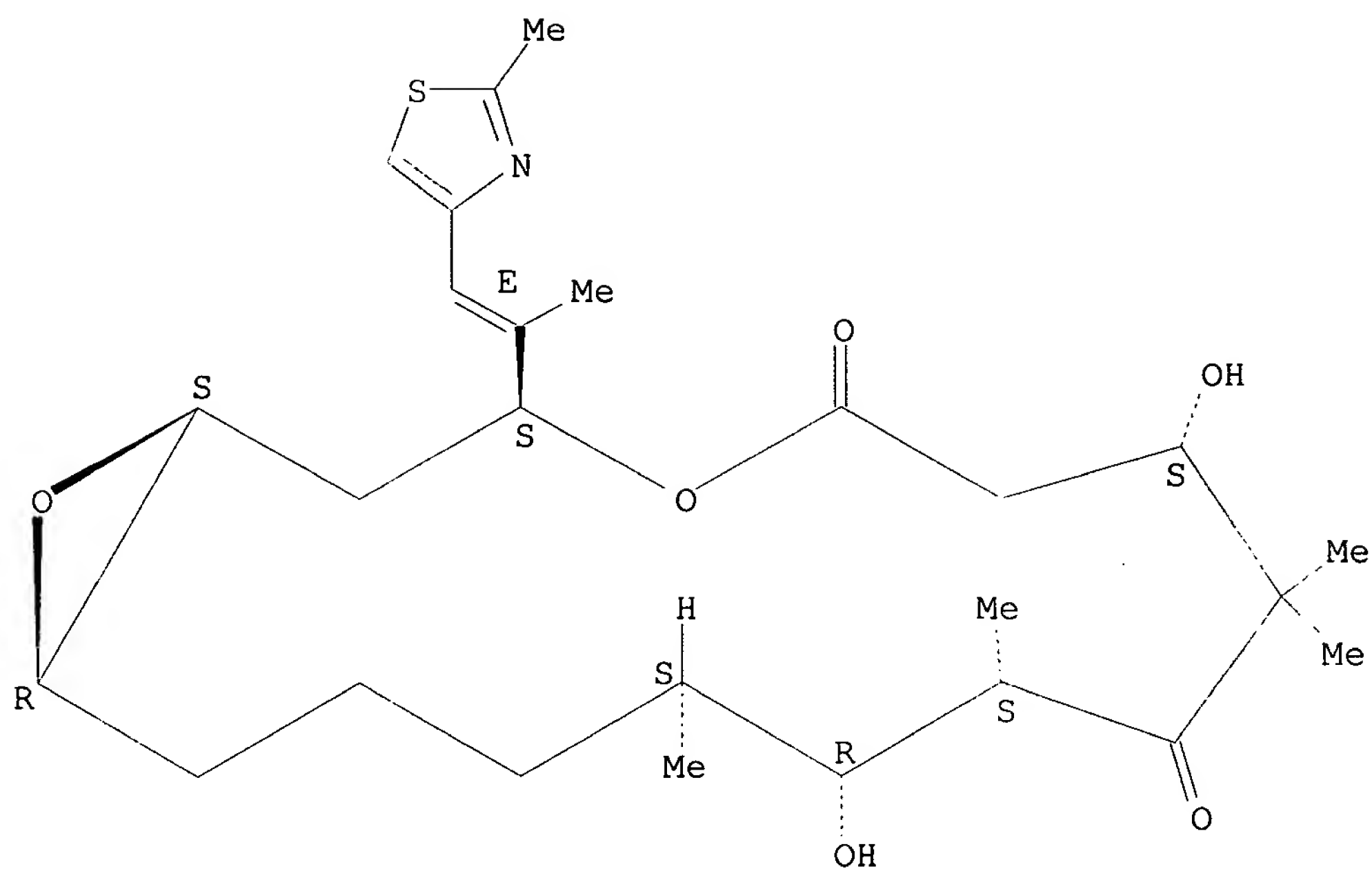
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 193146-36-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10S,11R,12S,16R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



IT 190370-10-6P 190370-11-7P 190370-13-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(total syntheses of epothilones A and B via a macrolactonization-based strategy)

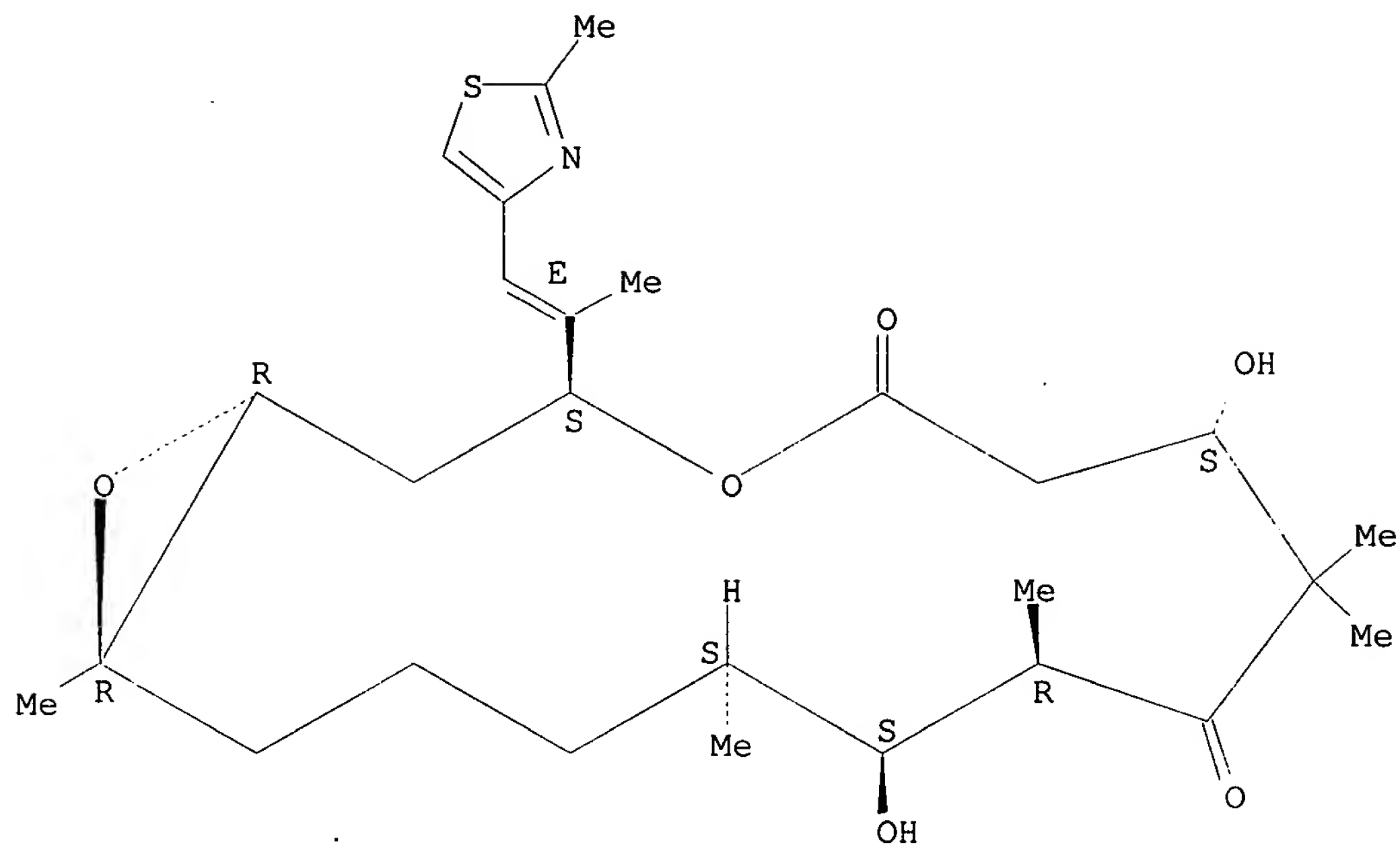
RN 190370-10-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
, (1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

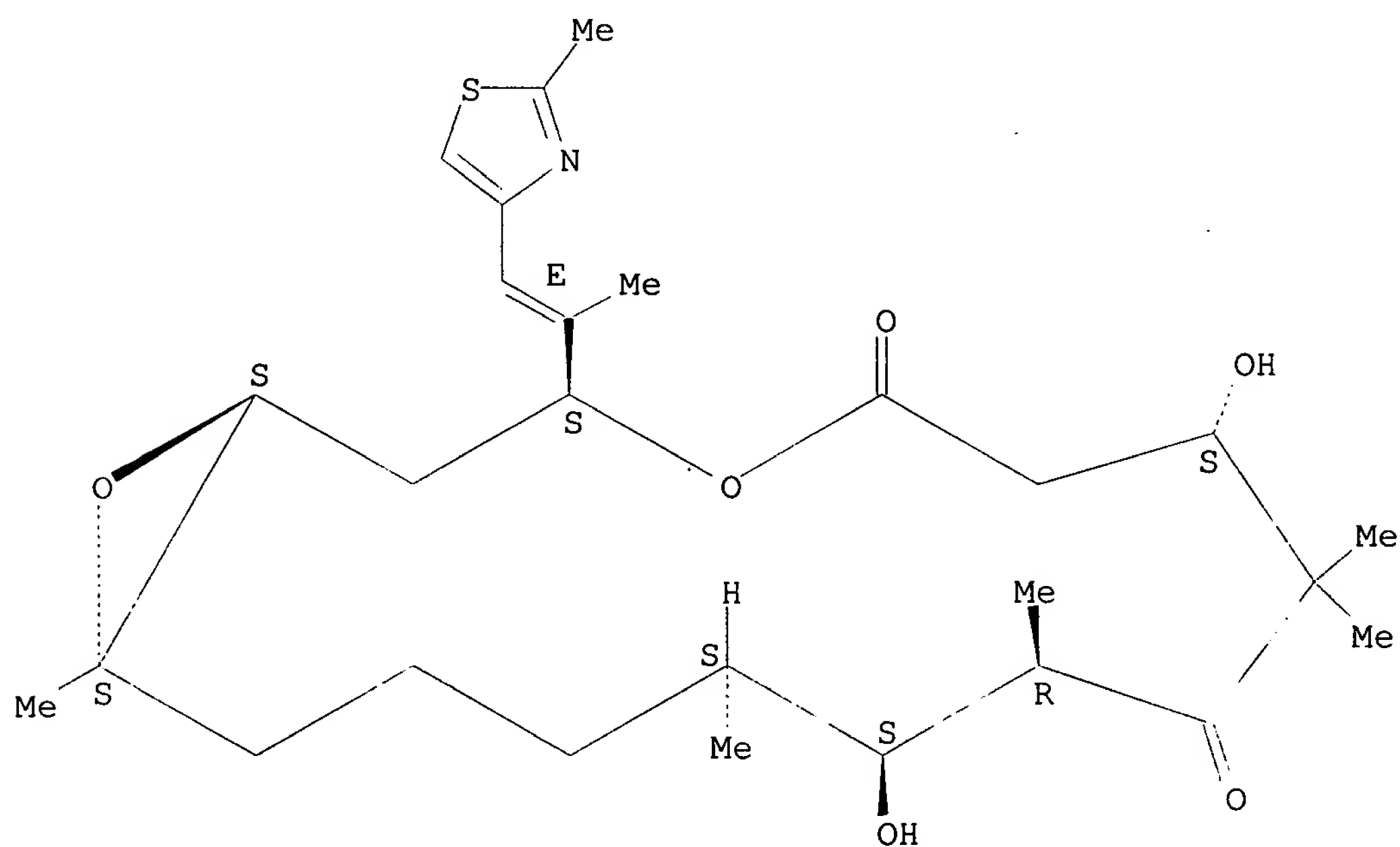


RN 190370-11-7 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

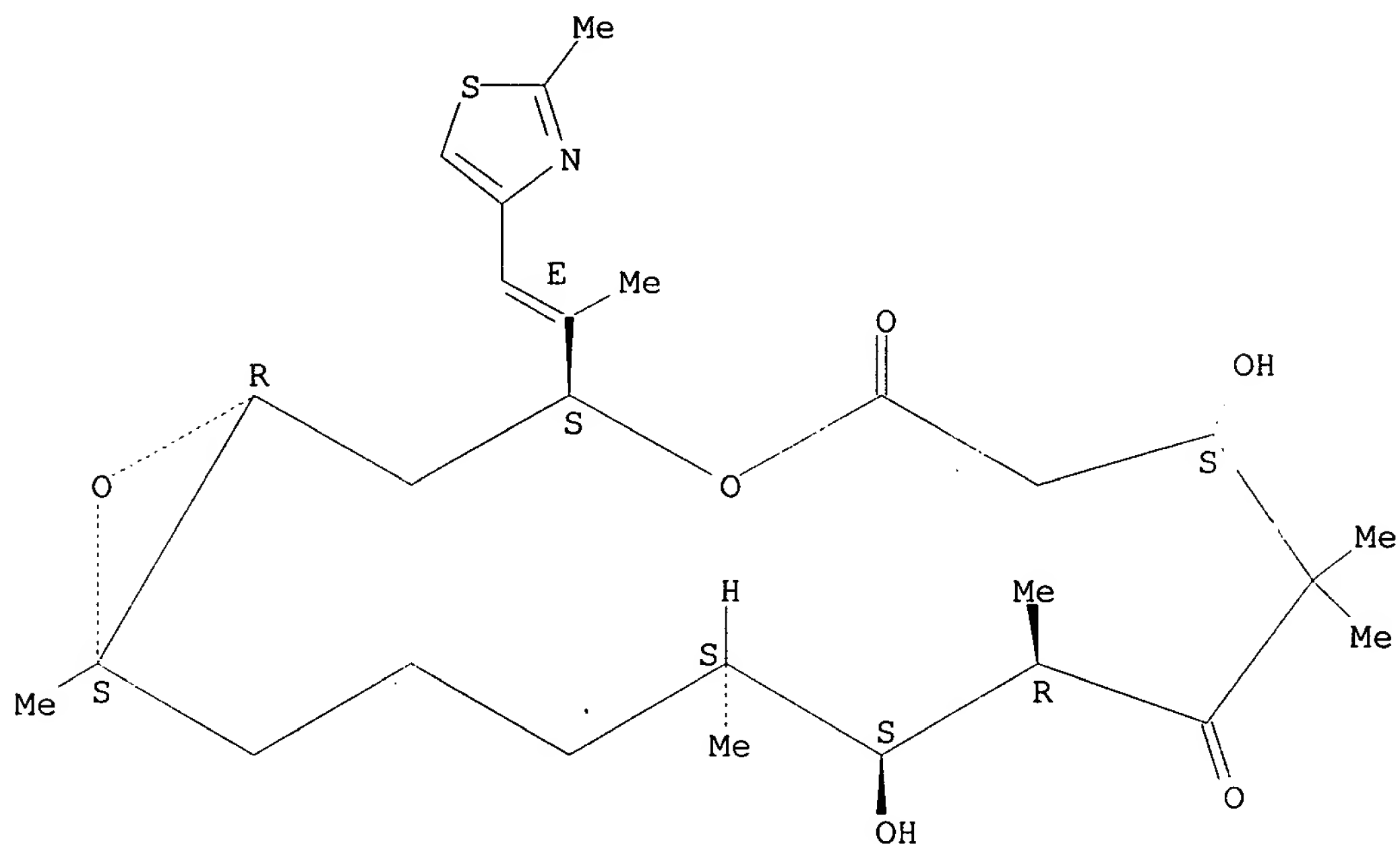
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 190370-13-9 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-
8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
[1R-[1R*,3S*(E),7S*,10R*,11S*,12S*,16S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



=> D BIB ABS HITSTR 22

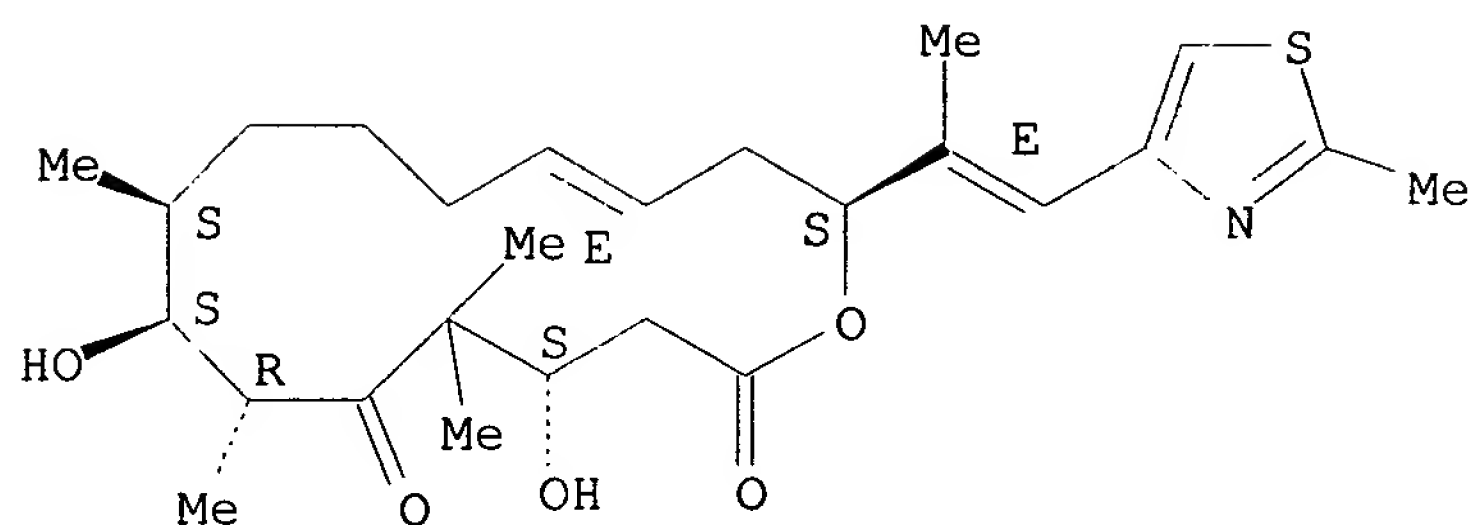
Proviso
L20 ANSWER 22 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1997:528752 CAPLUS
DN 127:149021
TI The Olefin Metathesis Approach to Epothilone A and Its Analogs
AU Nicolaou, K. C.; He, Y.; Vourloumis, D.; Vallberg, H.; Roschangar, F.;
Sarabia, F.; S.Ninkovic,; Yang, Z.; Trujillo, J. I.
CS Department of Chemistry and The Skaggs, Institute for Chemical Biology,
La Jolla, CA, 92037, USA
SO J. Am. Chem. Soc. (1997), 119(34), 7960-7973
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 127:149021
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The olefin metathesis approach to epothilone A (I) and several diastereomeric analogs is described. Key building blocks II, (S)-OHCCH(Me)CH₂CH₂CH=CH₂, and (S)-MeCH₂COC(Me)₂CH(OSiMe₂CMe₃)CH₂CO₂H were constructed in optically active form and were coupled and elaborated to olefin metathesis precursor III (R = SiMe₂CMe₃) via an aldol reaction and an esterification coupling. Olefin metathesis of compd. III (R = SiMe₂CMe₃), under the catalytic influence of RuCl₂(:CHPh)(PCy₃)₂, furnished cis- and trans-cyclic olefins IV (R = SiMe₂CMe₃). Epoxidn. of (Z)-IV (R = H) gave I and several analogs, whereas epoxidn. of (E)-IV (R = H) resulted in addnl. epothilones. Similar elaboration of isomeric as well as simpler intermediates resulted in yet another series of epothilone analogs and model systems.

IT 188260-10-8P 193071-85-1P 193071-86-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(synthesis of epothilone A and analogs via olefin metathesis)
RN 188260-10-8 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

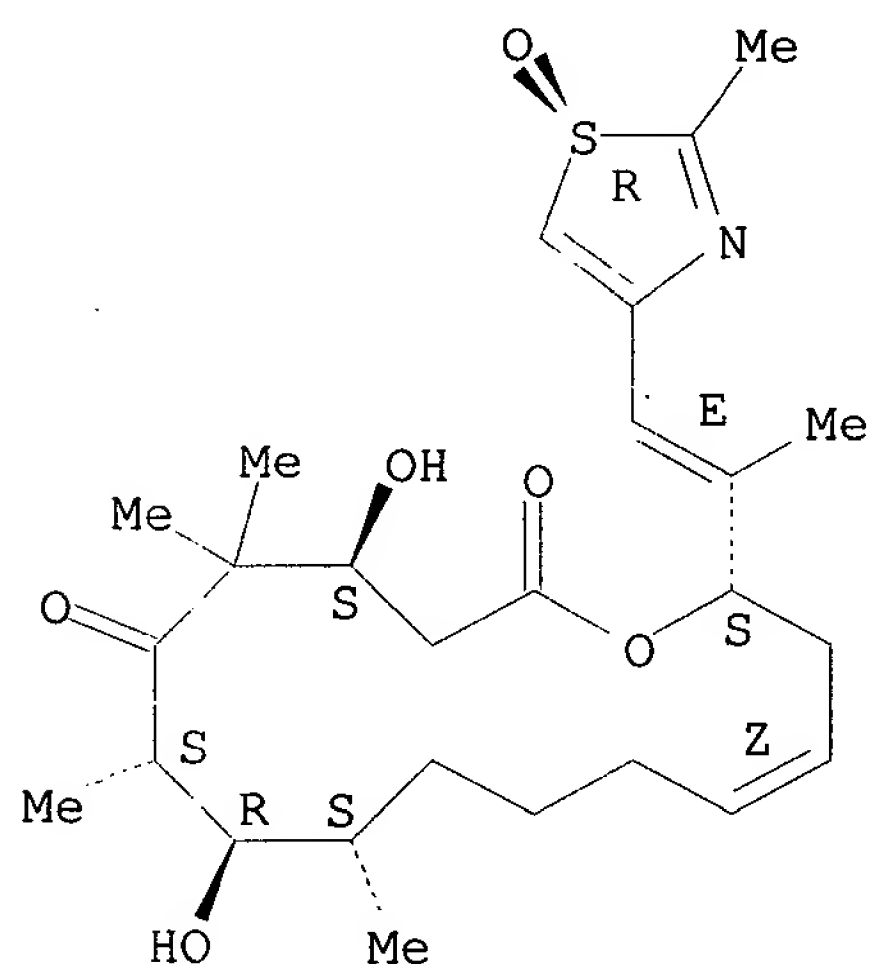
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 193071-85-1 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7,9-tetramethyl-16-[1-
methyl-2-(2-methyl-1-oxido-4-thiazolyl)ethenyl]-, [4S-
[4R*,7R*,8S*,9R*,13Z,16R*[E(S*)]]]- (9CI) (CA INDEX NAME)

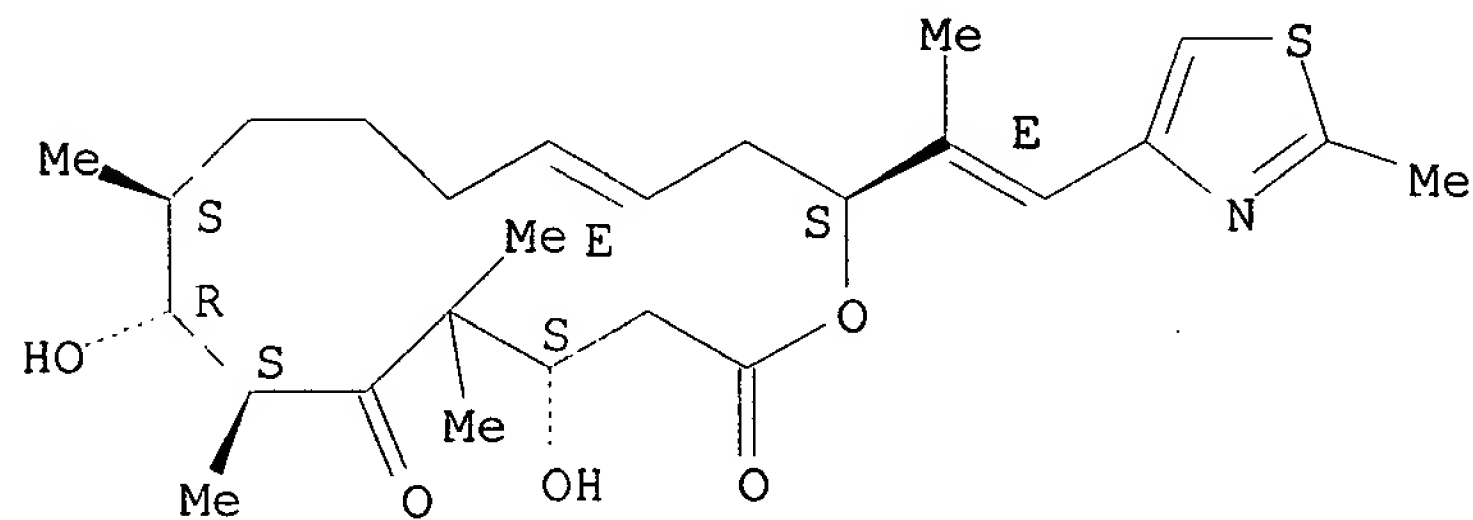
Absolute stereochemistry.
Double bond geometry as shown.



RN 193071-86-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7S,8R,9S,13E,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



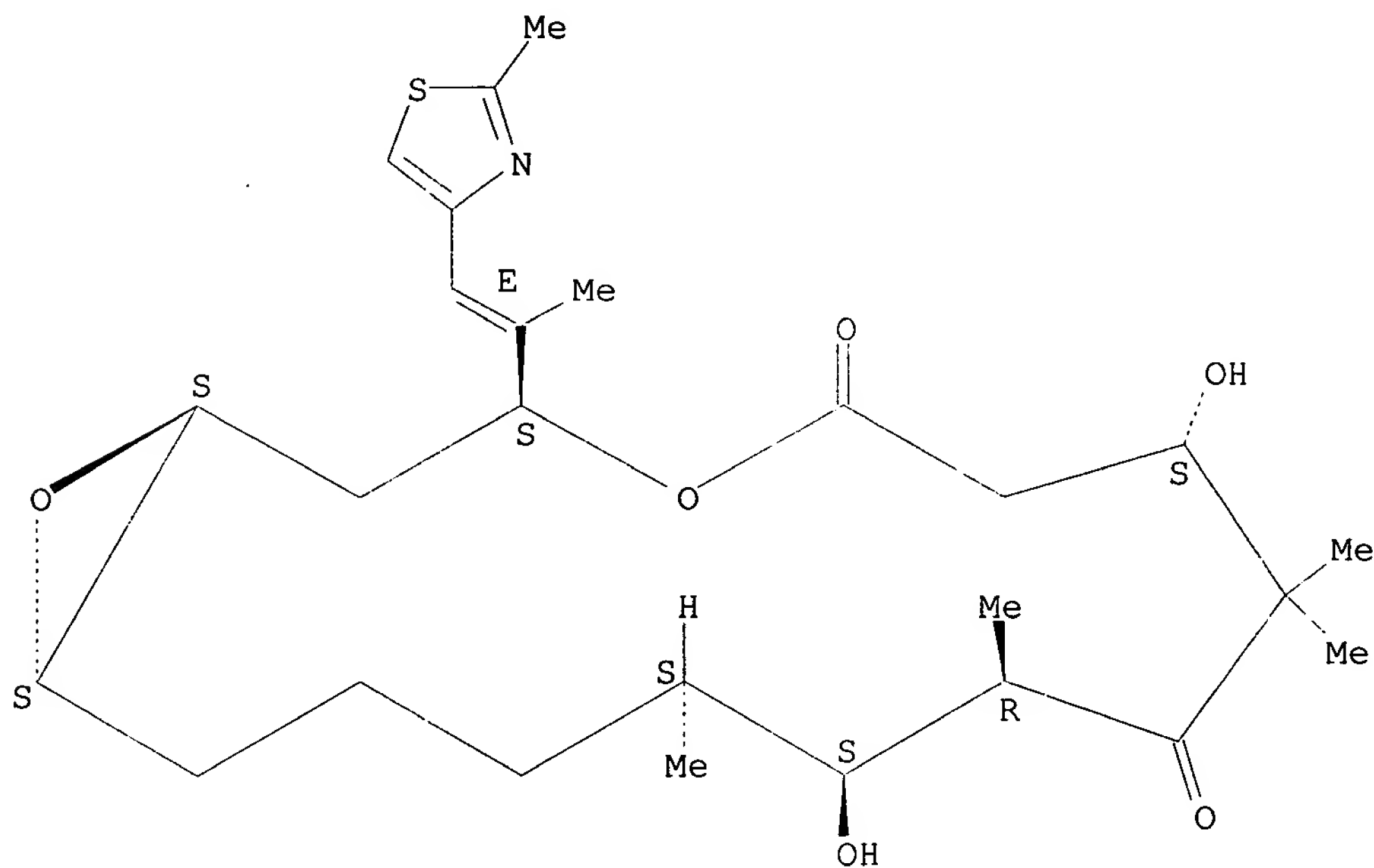
IT 190369-91-6P 193071-75-9P 193071-80-6P
193071-82-8P 193071-87-3P 193071-88-4P
193071-89-5P 193071-90-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of epothilone A and analogs via olefin metathesis)

RN 190369-91-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

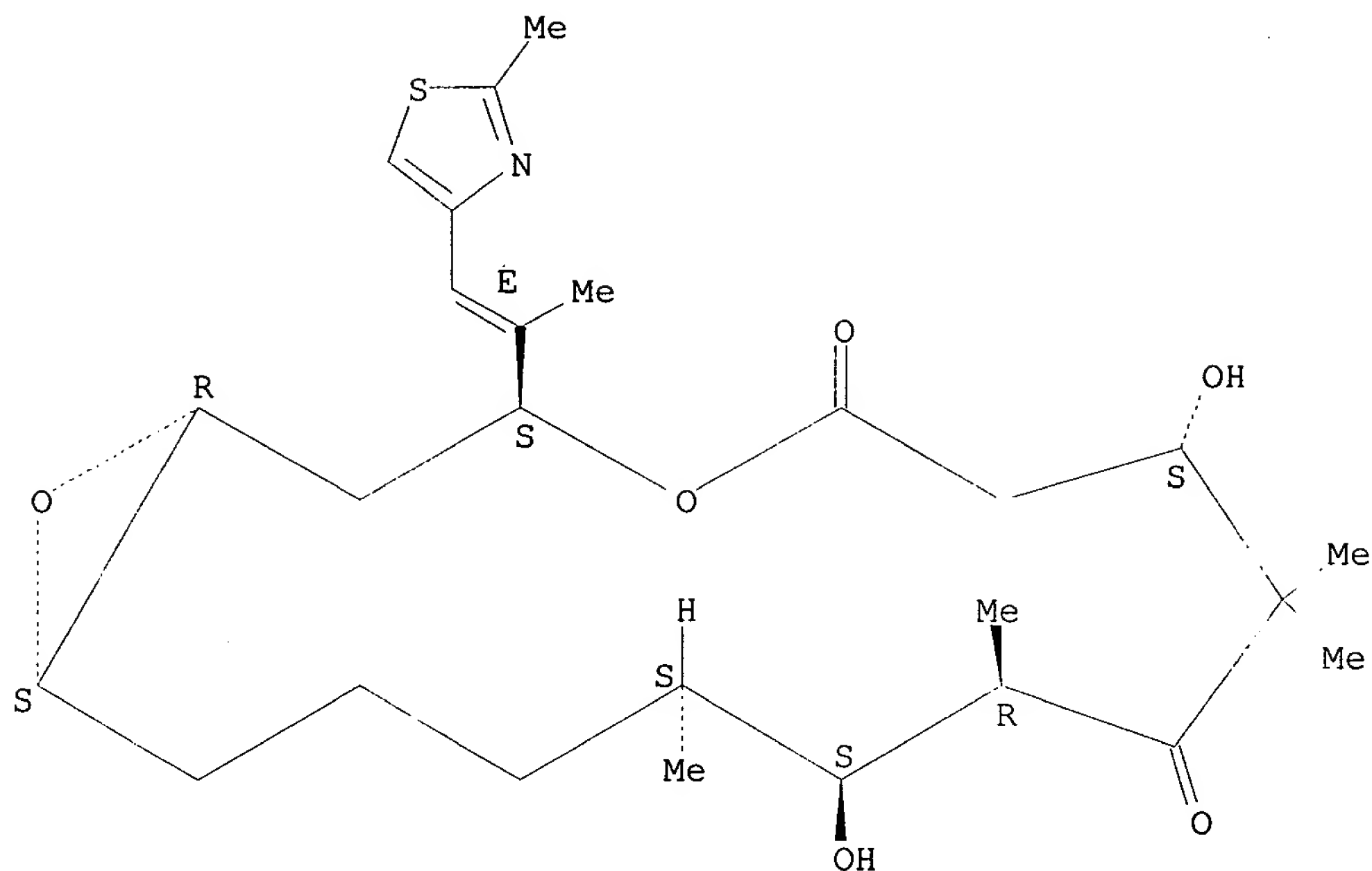
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 193071-75-9 CAPLUS

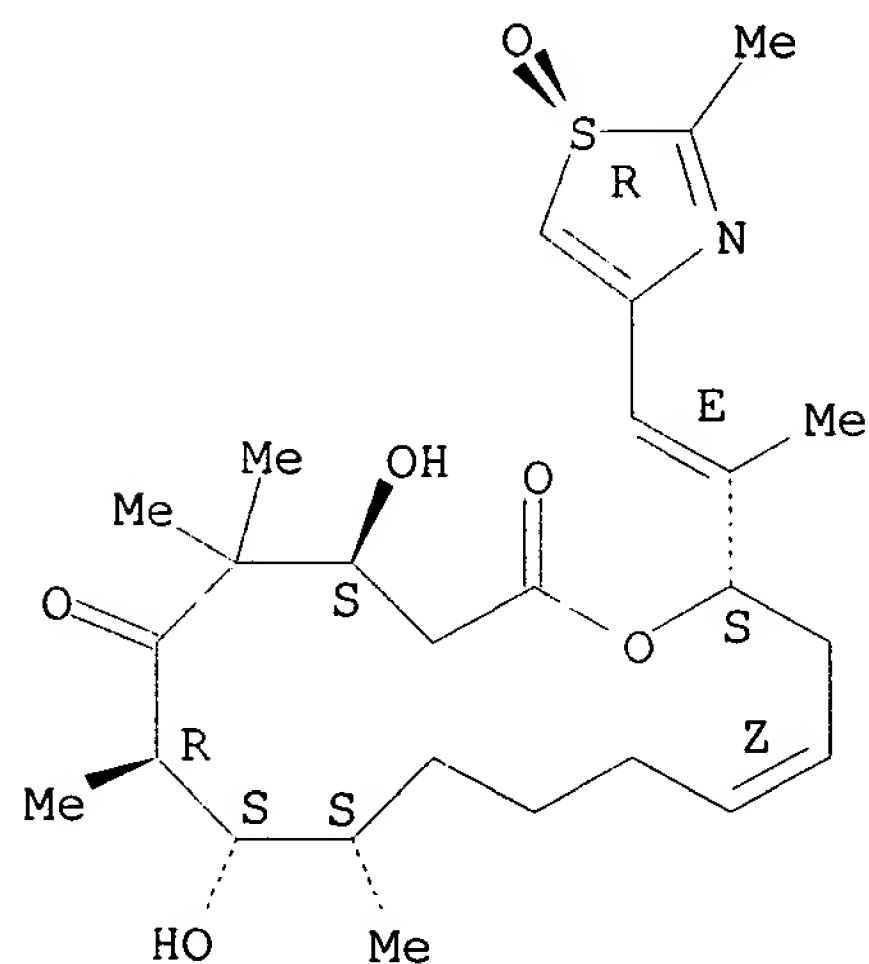
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 193071-80-6 CAPLUS
 CN Oxacyclohexadec-13-ene-2,6-dione,
 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[1-
 methyl-2-(2-methyl-1-oxido-4-thiazolyl)ethenyl]-, [4S-
 [4R*,7S*,8R*,9R*,13Z,16R*[E(S*)]]]- (9CI) (CA INDEX NAME)

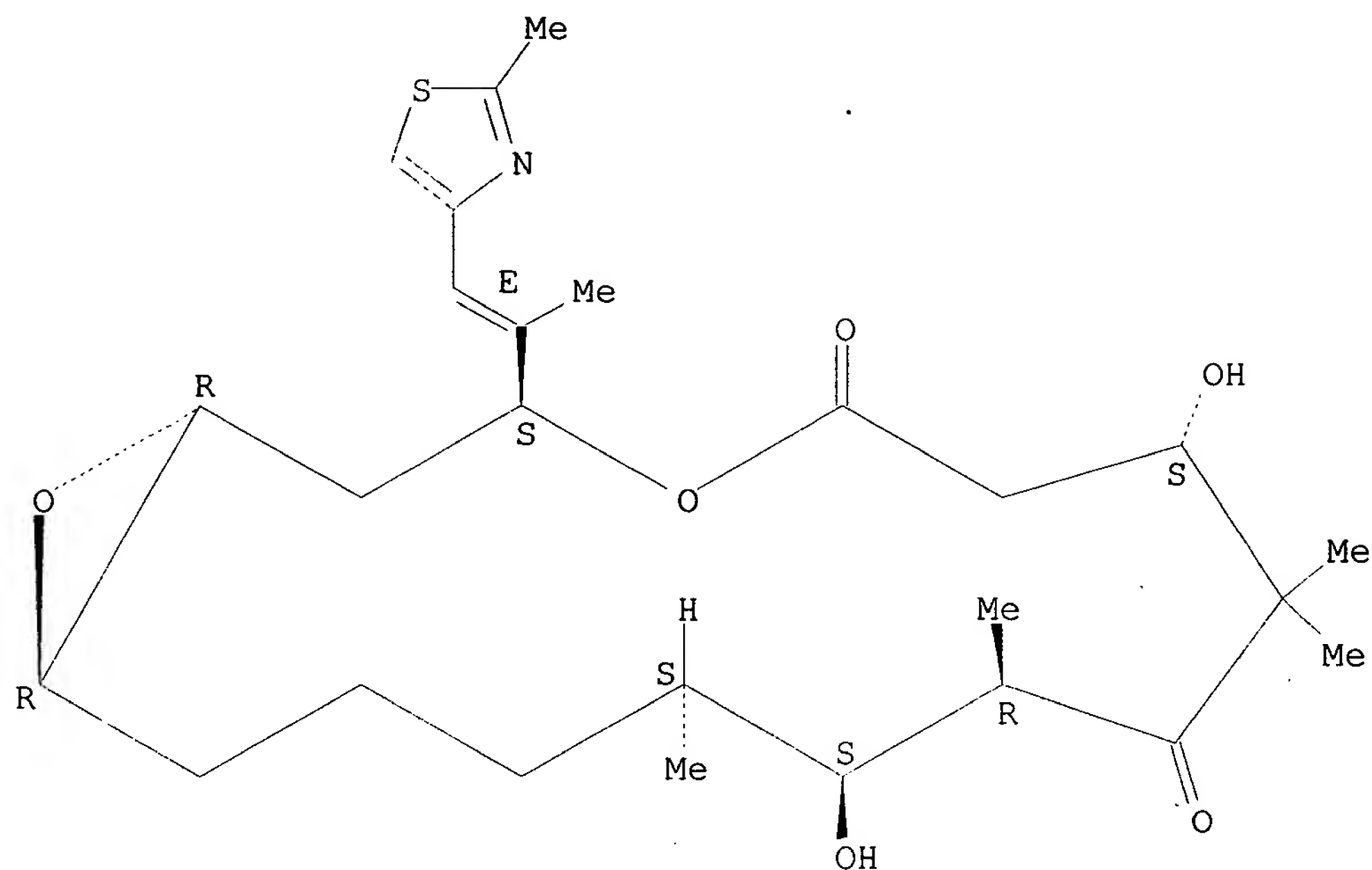
Absolute stereochemistry.
 Double bond geometry as shown.



RN 193071-82-8 CAPLUS
 CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-
 tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
 (1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

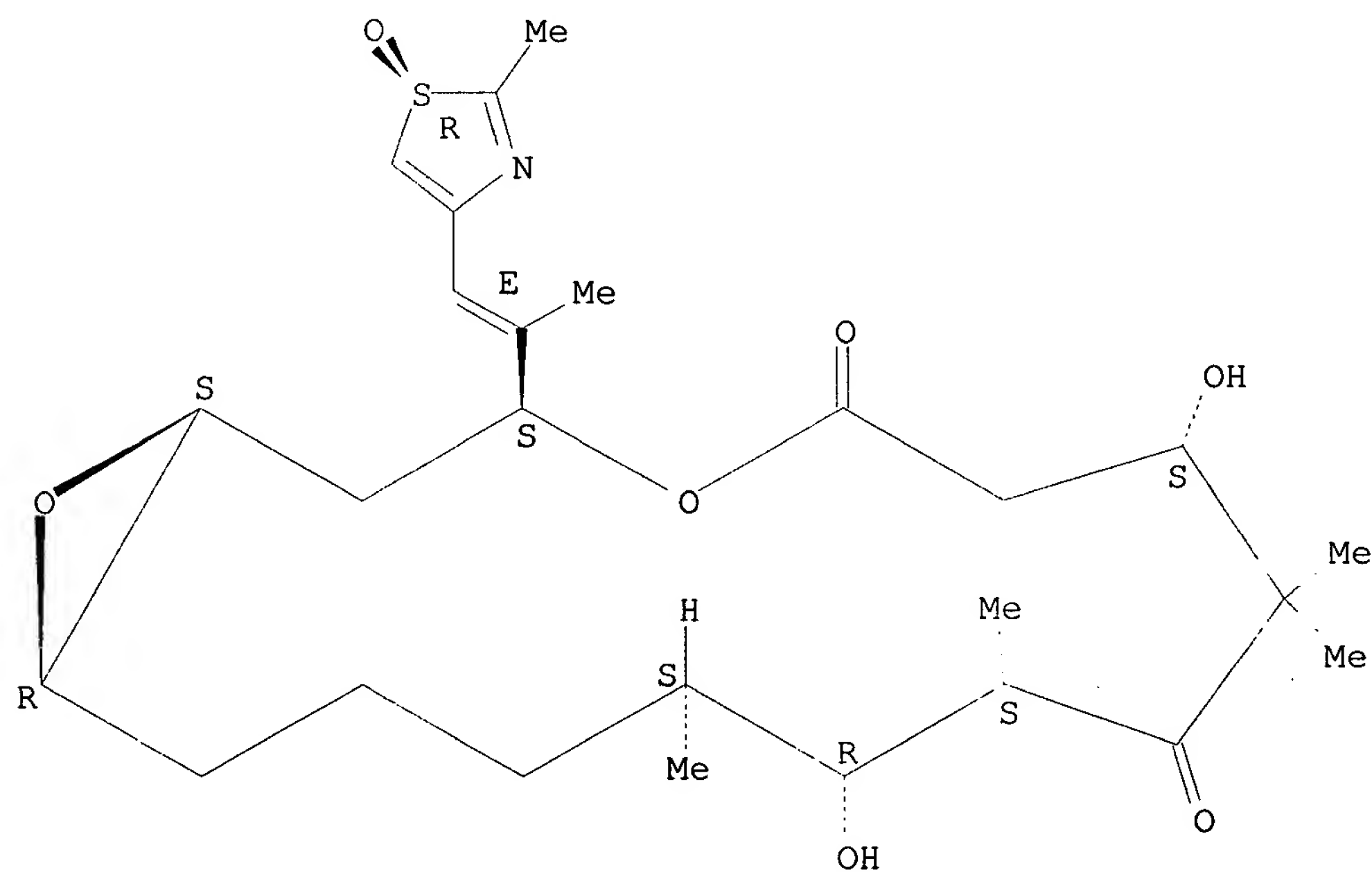


RN 193071-87-3 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-1-oxido-4-thiazolyl)ethenyl]-, [1S-[1R*,3R*[E(S*)],7R*,10R*,11S*,12R*,16S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

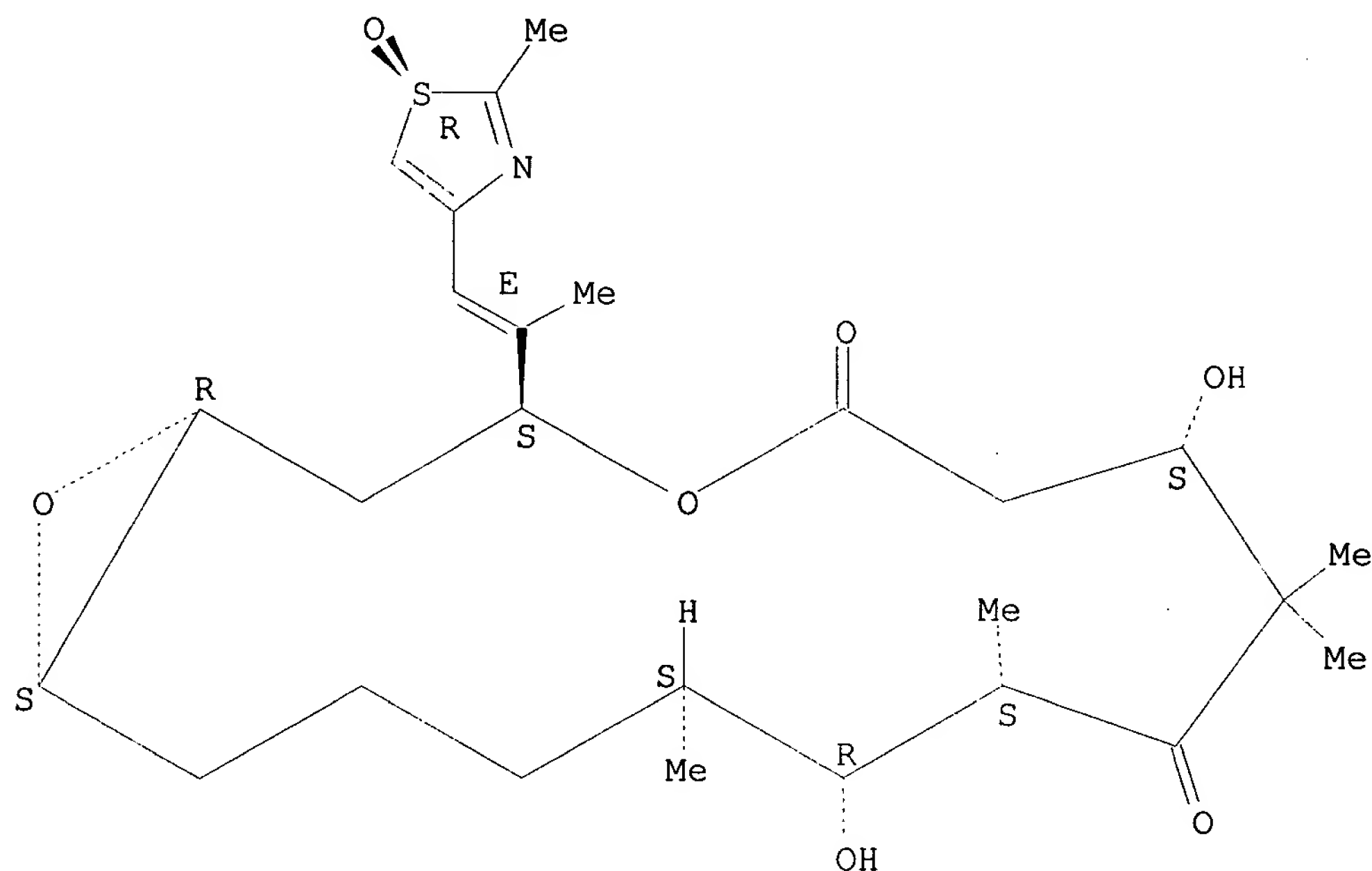
Double bond geometry as shown.



RN 193071-88-4 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[1-methyl-2-(2-methyl-1-oxido-4-thiazolyl)ethenyl]-, [1R-[1R*,3S*[E(R*)],7S*,10S*,11R*,12S*,16S*]]- (9CI) (CA INDEX NAME)

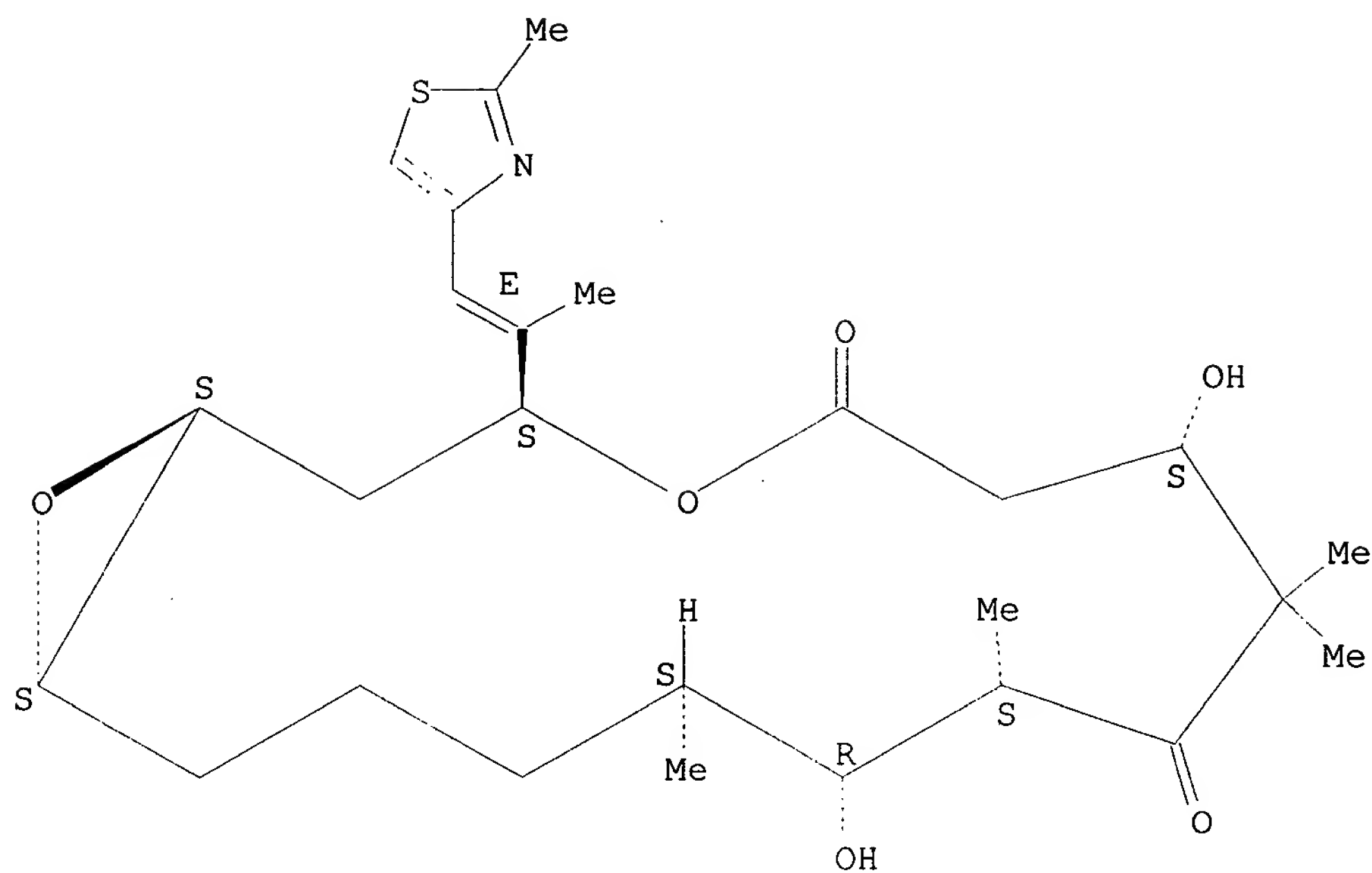
Absolute stereochemistry.
Double bond geometry as shown.



RN 193071-89-5 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10S,11R,12S,16S)- (9CI) (CA INDEX NAME)

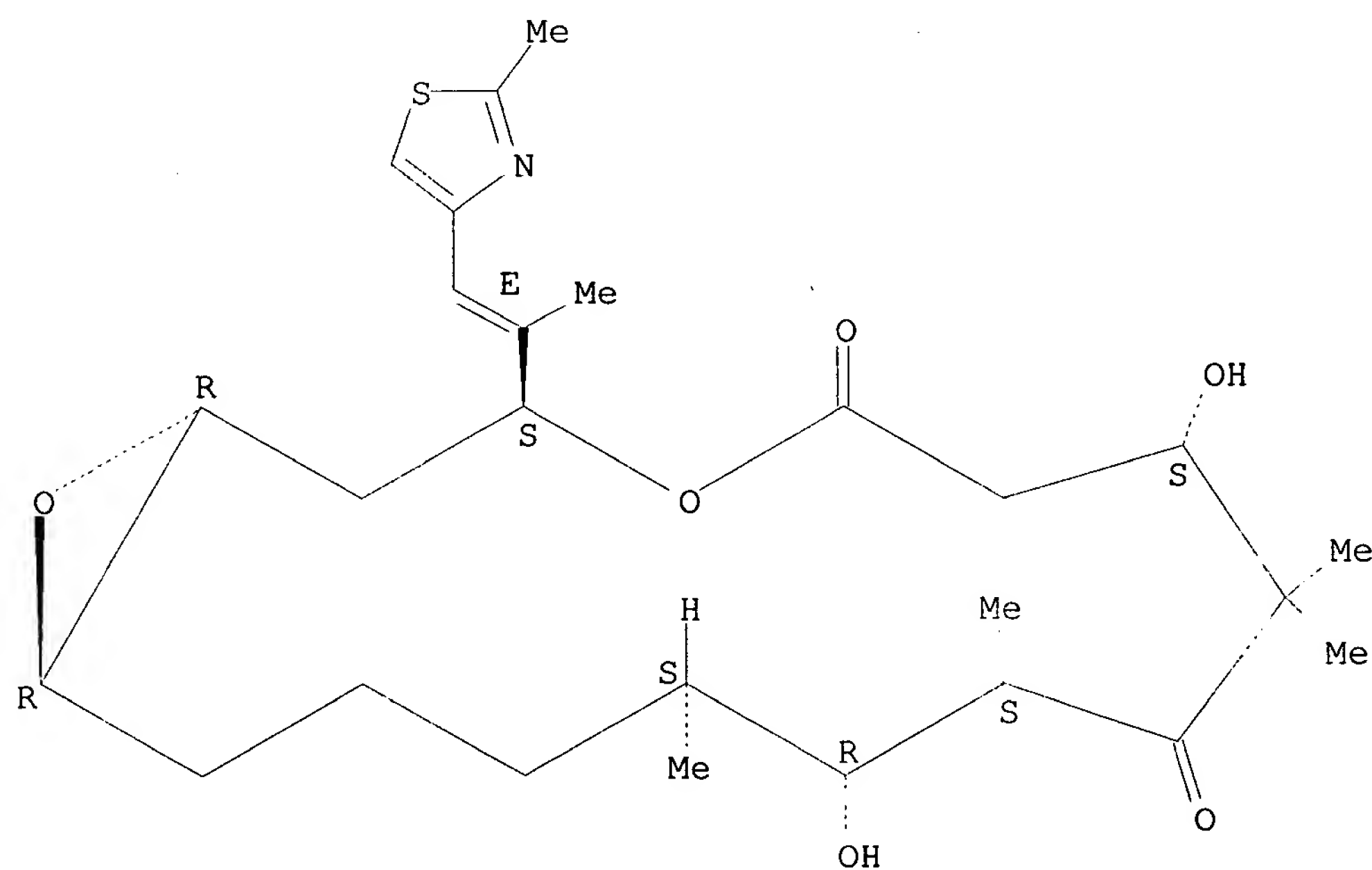
Absolute stereochemistry.
Double bond geometry as shown.



RN 193071-90-8 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3S,7S,10S,11R,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



=> D BIB ABS HITSTR 23

~~L20~~ ANSWER 23 OF 28 CAPLUS COPYRIGHT 1999 ACS

AN 1997:456769 CAPLUS

DN 127:50474

TI Preparation of epothilone derivatives as agrochemicals and pharmaceuticals

IN Hoefle, Gerhard; Kiffe, Michael

PA Gesellschaft fuer Biotechnologische Forschung Mbh (Gbf), Germany

SO Ger. Offen., 9 pp.

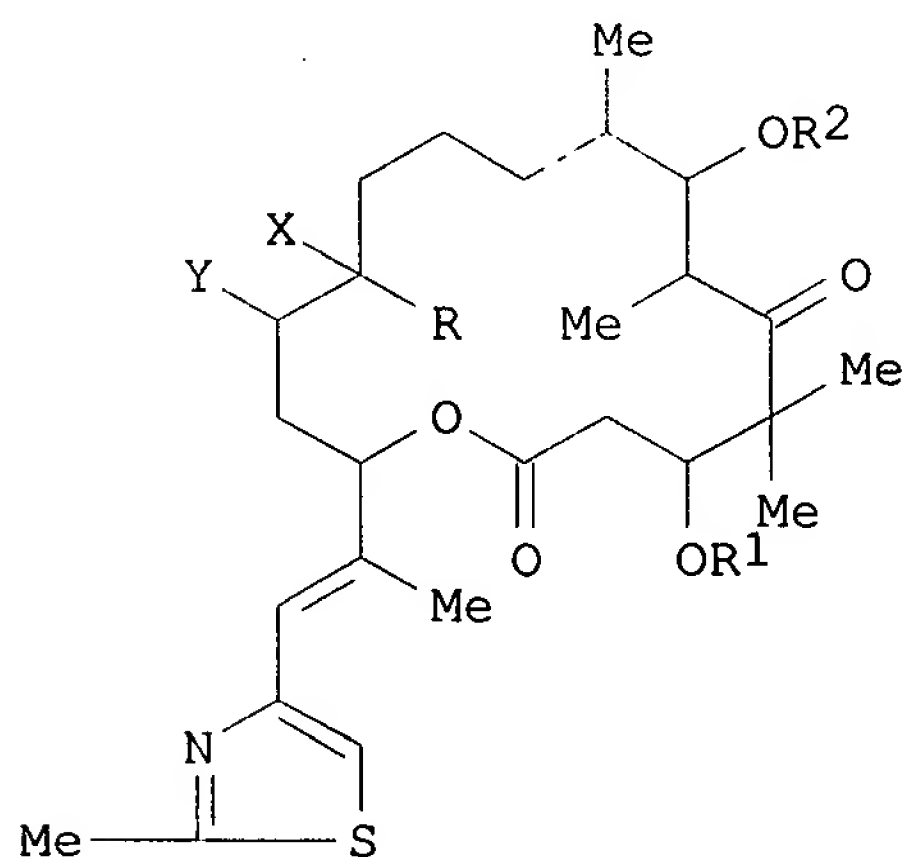
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19542986	A1	19970522	DE 95-19542986	19951117
	WO 9719086	A1	19970529	WO 96-EP5080	19961118
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,				
SE	EP 873341	A1	19981028	EP 96-939097	19961118
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	EP 903348	A1	19990324	EP 98-121523	19961118
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	DE 95-19542986		19951117		
	DE 96-19639456		19960925		
	EP 96-939097		19961118		
	WO 96-EP5080		19961118		
OS	MARPAT 127:50474				
GI					



I

AB The title compds., e.g., I [R = H, C1-4 alkyl; R1, R2 = H, C1-6 alkyl, C1-6 acyl, benzoyl, C1-4 trialkylsilyl, benzyl, Ph, C1-6 alkoxy, C6

alkyl-, hydroxy-, and halo-substituted benzyl or phenyl; X, Y = halo, OH, acyloxy, alkoxy, benzoyloxy], useful as agrochems. and pharmaceuticals (no data), are prepd. Thus, epothilone A in acetone contg. trifluoroacetic acid was heated overnight at 50.degree. and the reaction mixt. was adjusted to pH 7 with 1 M phosphate buffer to give 2 isomers, each in 19% yield.

IT 191105-82-5P

RL: AGR (Agricultural use); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

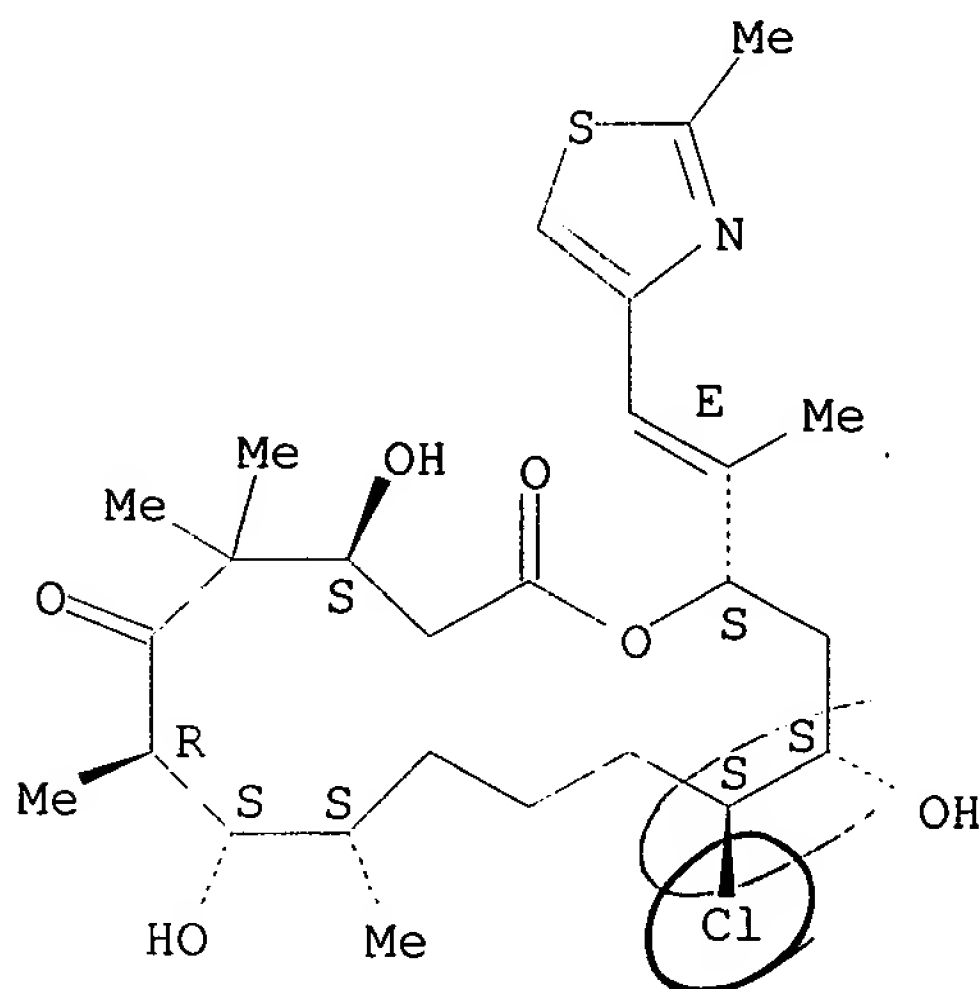
(prepn. of epothilone derivs. as agrochems. and pharmaceuticals)

RN 191105-82-5 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 13-chloro-4,8,14-trihydroxy-5,5,7,9-tetramethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, [4R*,7S*,8R*,9R*,13R*,14R*,16R*(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.



IT 191105-80-3P 191105-81-4P 191105-84-7P

RL: AGR (Agricultural use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

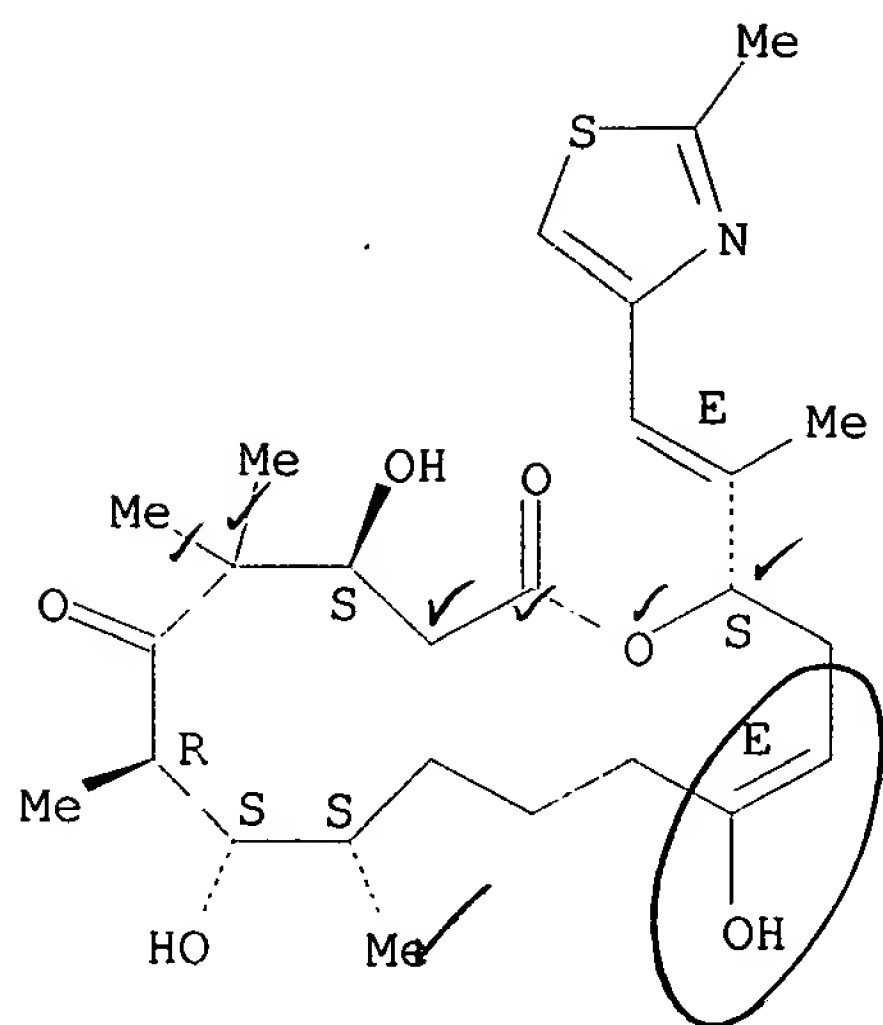
(prepn. of epothilone derivs. as agrochems. and pharmaceuticals)

RN 191105-80-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8,13-trihydroxy-5,5,7,9-tetramethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, [4R*,7S*,8R*,9R*,13E,16R*(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

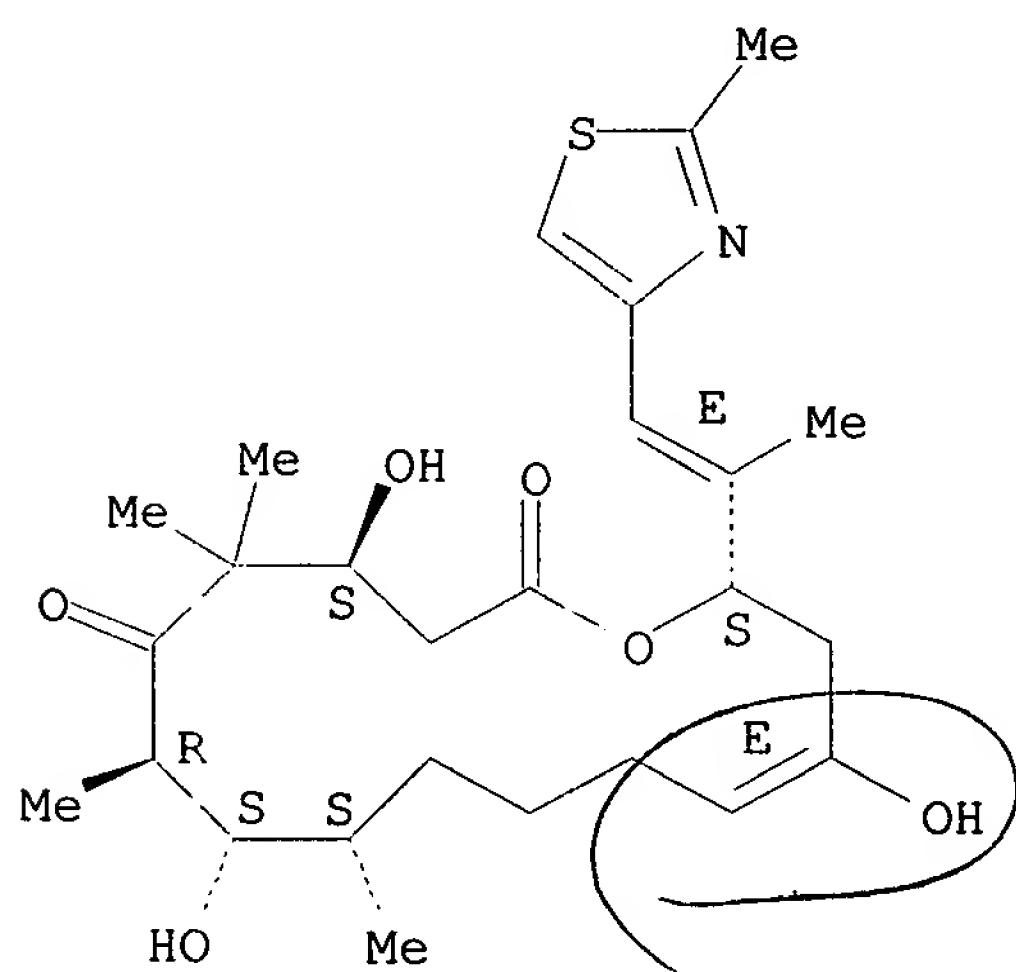
Double bond geometry as shown.



RN 191105-81-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8,14-trihydroxy-5,5,7,9-tetramethyl-16-
[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
[4R*,7S*,8R*,9R*,13E,16R*(E)]-
(9CI) (CA INDEX NAME)

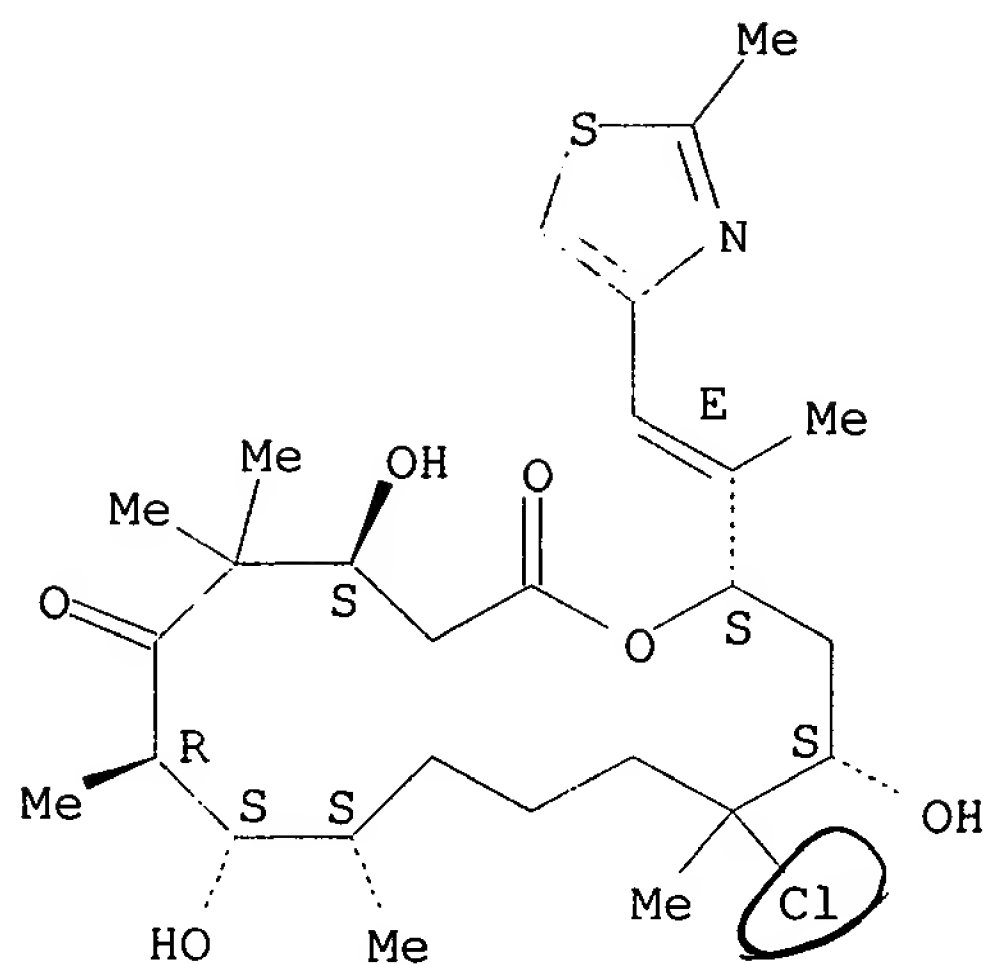
Relative stereochemistry.
Double bond geometry as shown.



RN 191105-84-7 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 13-chloro-4,8,14-trihydroxy-5,5,7,9,13-
pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
[4R,7S,8R,9R,14R,16R(E)]-rel-[partial]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



IT 191105-95-0

RL: RCT (Reactant)

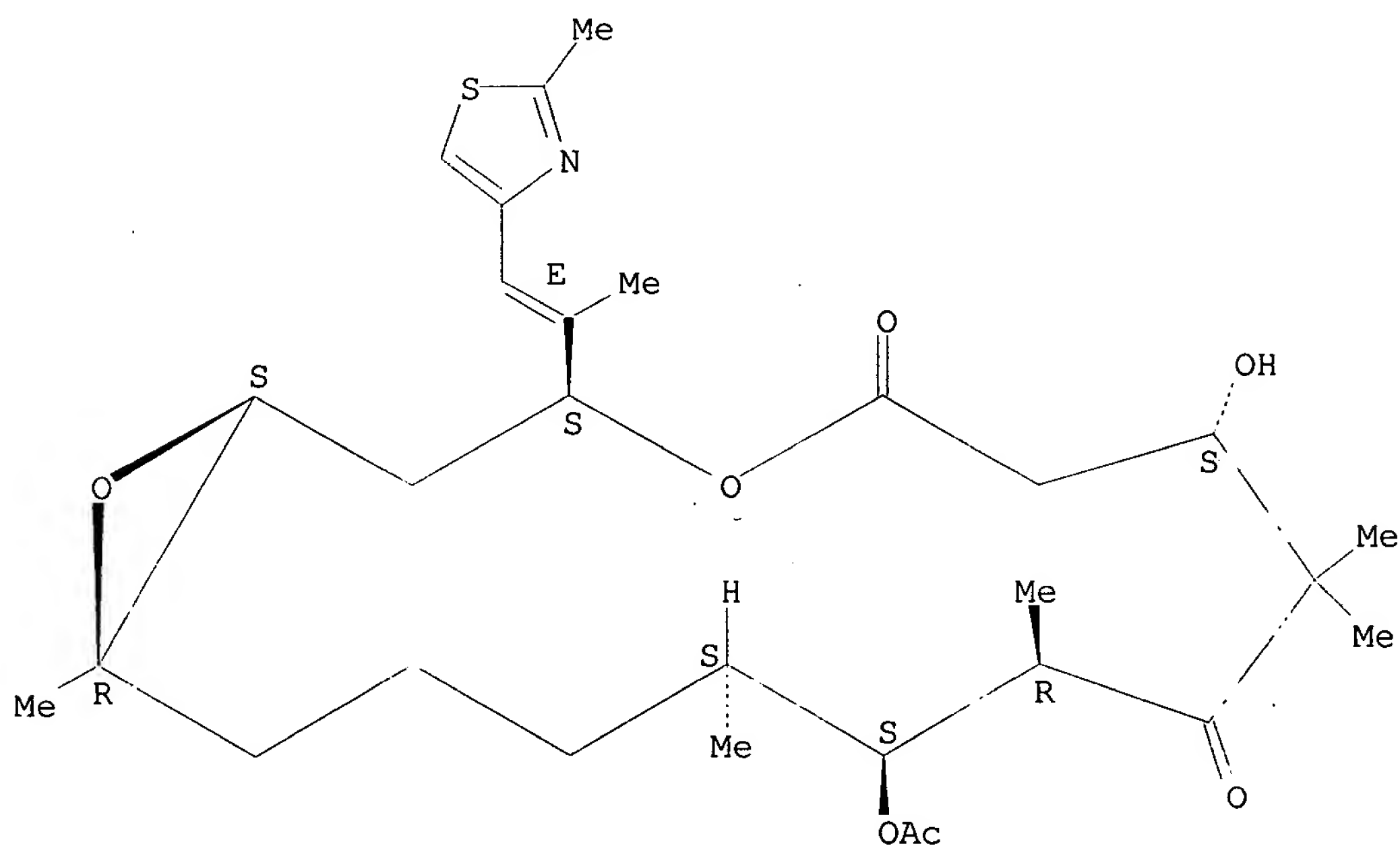
(prepn. of epothilone derivs. as agrochems. and pharmaceuticals)

RN 191105-95-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 11-(acetyloxy)-7-hydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, [1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.



=> D BIB ABS HITSTR 24

~~L28~~ ANSWER 24 OF 28 CAPLUS COPYRIGHT 1999 ACS

AN 1997:443365 CAPLUS

DN 127:81289

TI Preparation of epothilone derivatives as agrochemicals and pharmaceuticals

IN Hofle, Gerhard; Kiffe, Michael

PA Gesellschaft Fur Biotechnologische Forschung Mbh (Gbf), Germany; Hofle, Gerhard; Kiffe, Michael

SO PCT Int. Appl., 38 pp.

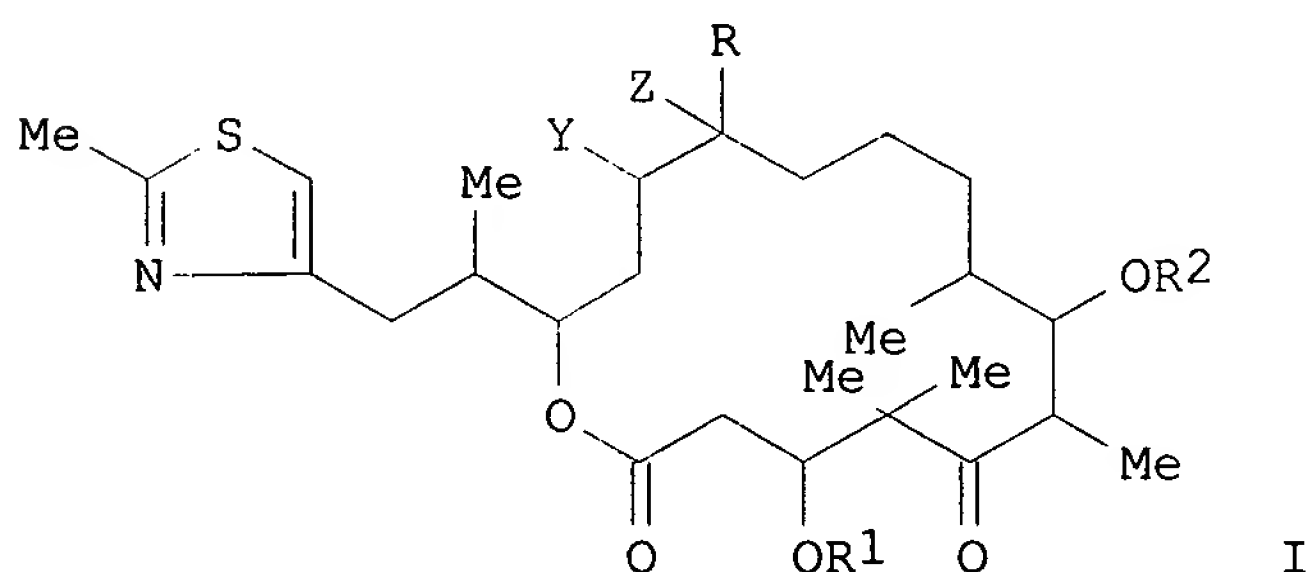
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 9719086	A1	19970529	WO 96-EP5080	19961118
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,				
SE	DE 19542986	A1	19970522	DE 95-19542986	19951117
	DE 19639456	A1	19980326	DE 96-19639456	19960925
	EP 873341	A1	19981028	EP 96-939097	19961118
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	DE 95-19542986		19951117		
	DE 96-19639456		19960925		
	WO 96-EP5080		19961118		
OS	MARPAT 127:81289				
GI					



AB The title compds., e.g., I [R = H, C1-4 alkyl; R1, R2 = H, C1-6 alkyl, C1-6 acyl, benzoyl, C1-4 trialkylsilyl, benzyl, Ph, C1-6 alkoxy, C6 alkyl-, hydroxy-, and halo-substituted benzyl or phenyl; X, Y = H, halo, pseudohalo, OH, acyloxy, alkoxy, benzoyloxy; or YZ = O, bond; however, I may not be epothilone A or B], useful as agrochemicals and pharmaceuticals (no data), are prepd. Thus, epothilone A in acetone contg. trifluoroacetic acid was heated overnight at 50.degree. and the reaction mixt. was adjusted to pH 7 with 1 M phosphate buffer to give 2 isomers, each in 19% yield.

IT 191105-82-5P

RL: AGR (Agricultural use); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

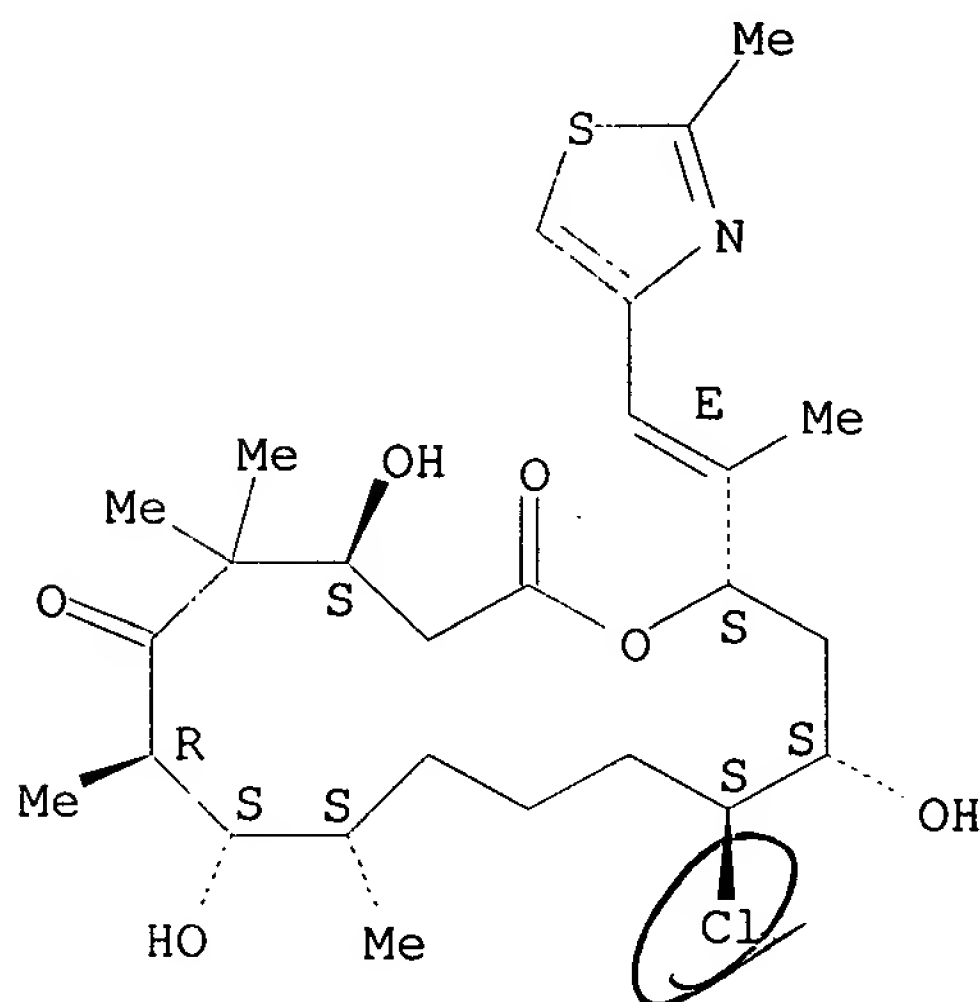
(prepn. of epothilone derivs. as agrochems. and pharmaceuticals)

RN 191105-82-5 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 13-chloro-4,8,14-trihydroxy-5,5,7,9-tetramethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, [4R*,7S*,8R*,9R*,13R*,14R*,16R*(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.



IT 191105-80-3P 191105-81-4P 191105-84-7P

RL: AGR (Agricultural use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

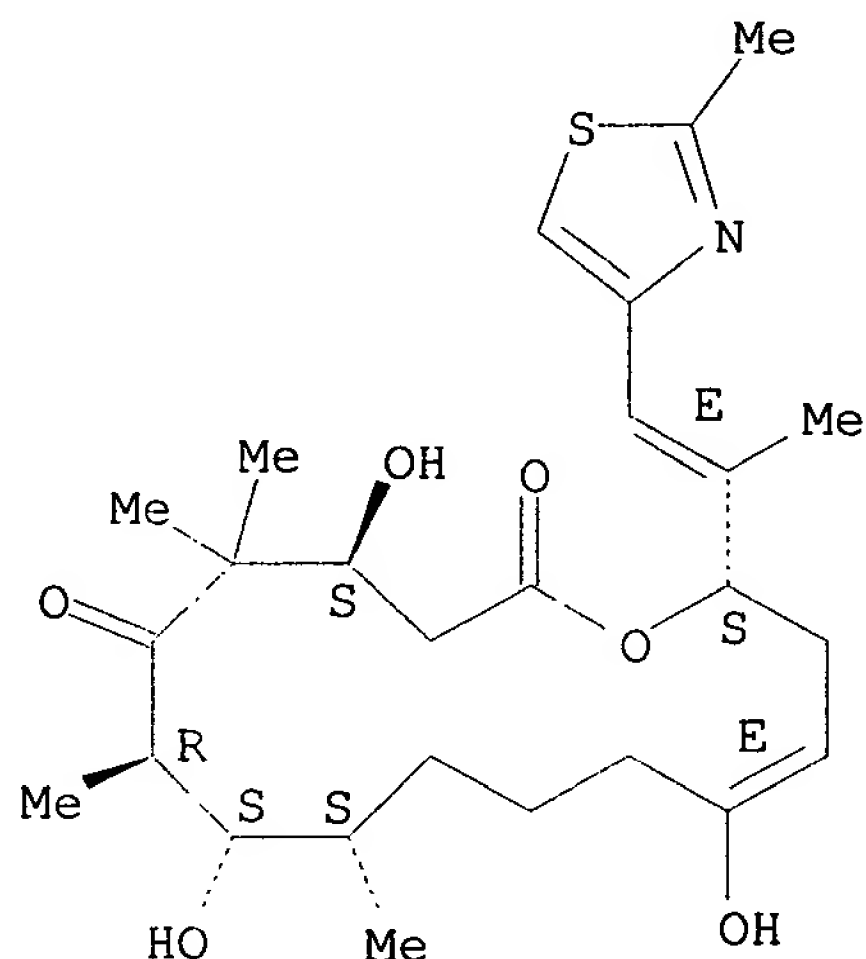
(prepn. of epothilone derivs. as agrochems. and pharmaceuticals)

RN 191105-80-3 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8,13-trihydroxy-5,5,7,9-tetramethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, [4R*,7S*,8R*,9R*,13E,16R*(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

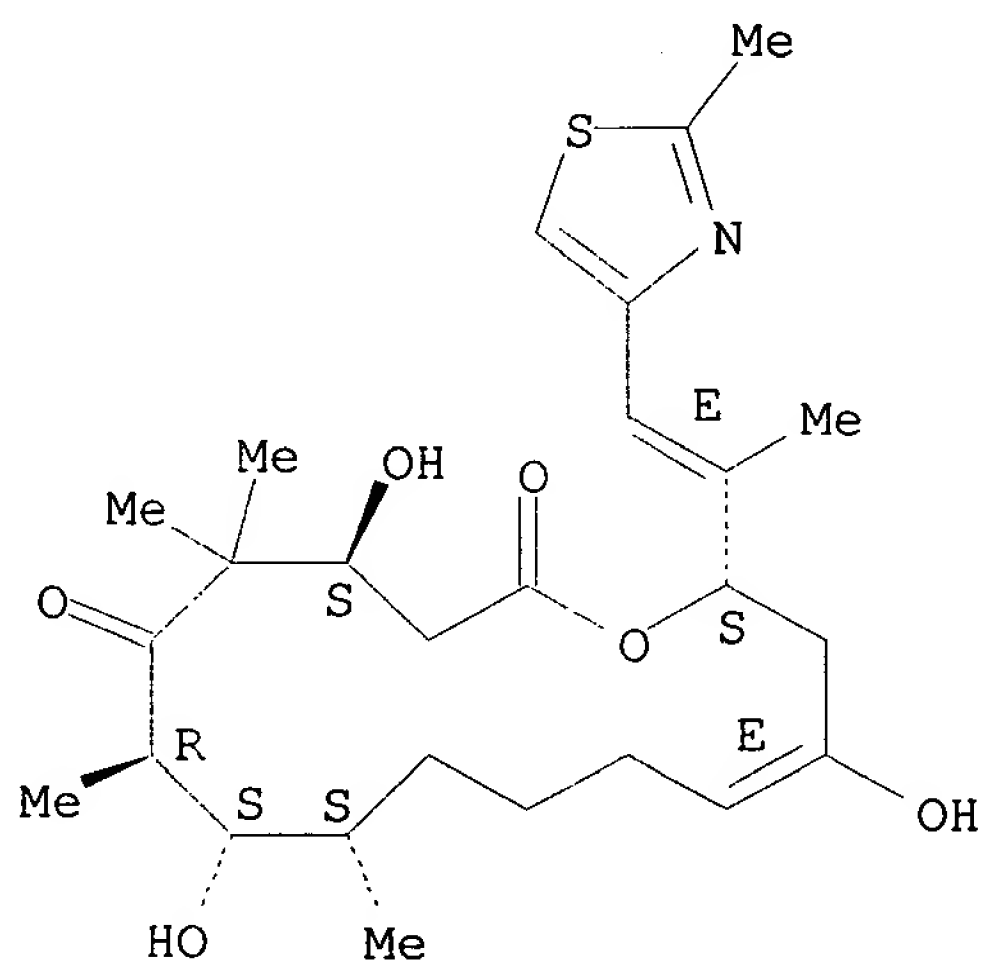
Double bond geometry as shown.



RN 191105-81-4 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8,14-trihydroxy-5,5,7,9-tetramethyl-16-
[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
[4R*,7S*,8R*,9R*,13E,16R*(E)]-
(9CI) (CA INDEX NAME)

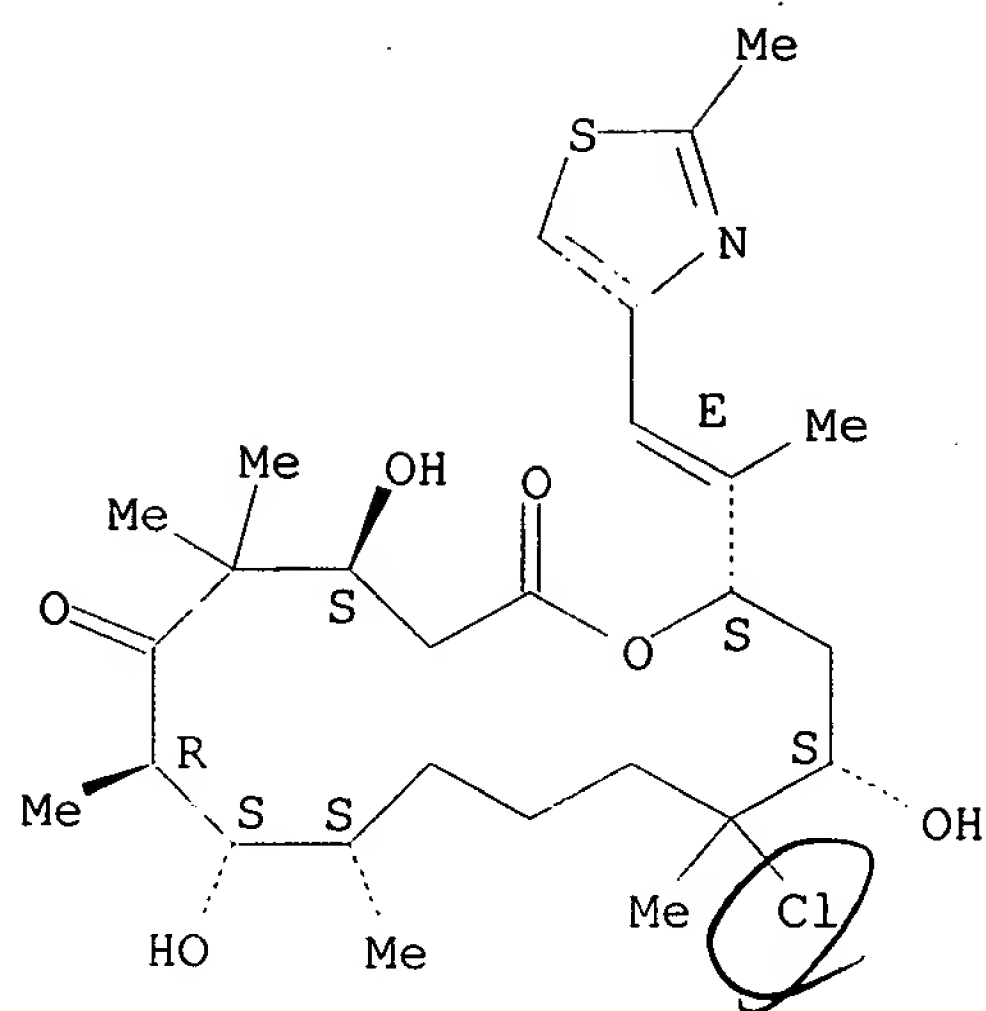
Relative stereochemistry.
Double bond geometry as shown.



RN 191105-84-7 CAPLUS

CN Oxacyclohexadecane-2,6-dione, 13-chloro-4,8,14-trihydroxy-5,5,7,9,13-
pentamethyl-16-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
[4R,7S,8R,9R,14R,16R(E)]-rel-[partial]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



IT 191105-95-0

RL: RCT (Reactant)

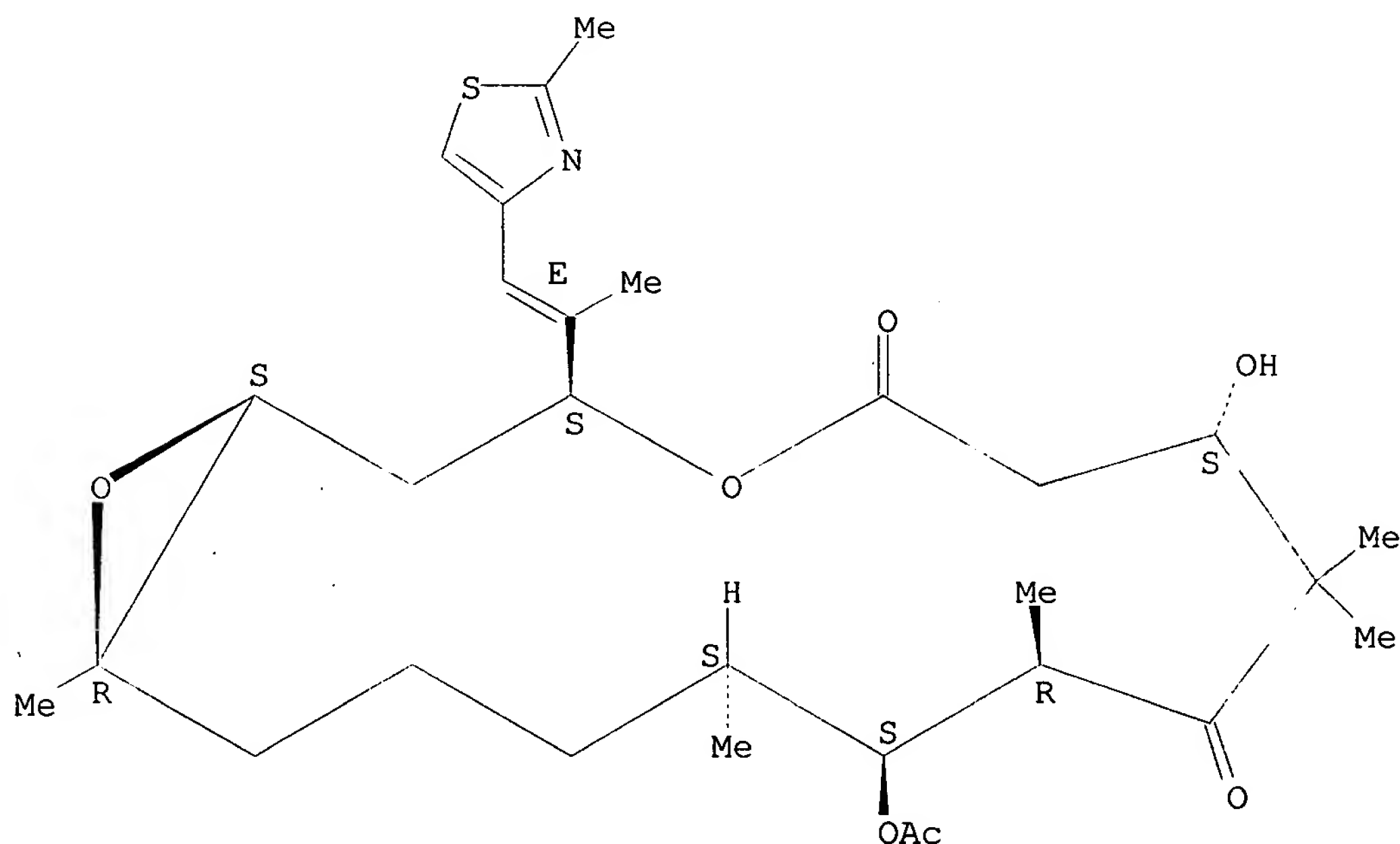
(prepn. of epothilone derivs. as agrochems. and pharmaceuticals)

RN 191105-95-0 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 11-(acetyloxy)-7-hydroxy-8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, [1R*,3R*(E),7R*,10S*,11R*,12R*,16S*]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

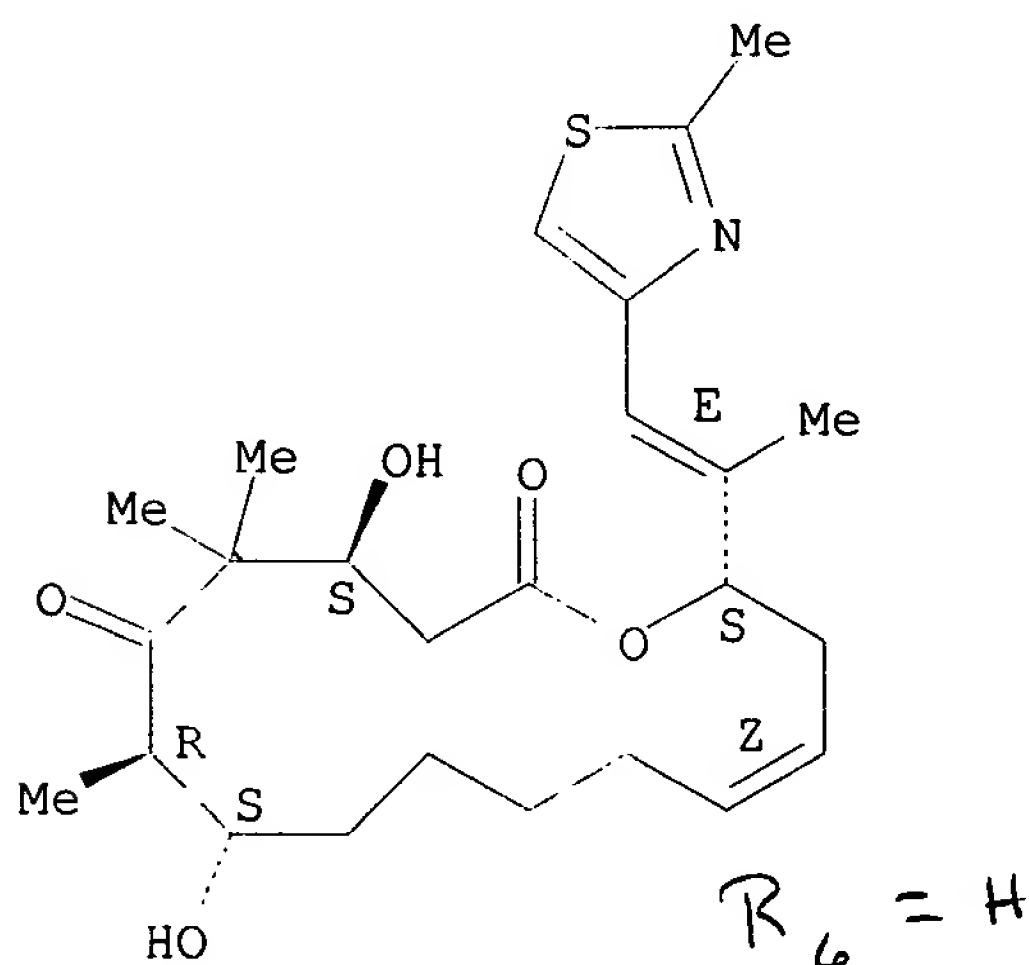
Double bond geometry as shown.



=> D BIB ABS HITSTR 25

L20 ANSWER 25 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1997:430309 CAPLUS
DN 127:108793
TI Stereoselective syntheses and evaluation of compounds in the
8-desmethylepothilone A series: some surprising observations regarding
their chemical and biological properties
AU Balog, Aaron; Betinato, Peter; Su, Dai-Shi; Meng, Dongfang; Sorensen,
Erik; Danishefsky, Samuel J.; Zheng, Yu-Huang; Chou, Ting-Chao; He,
Lifeng; Horwitz, Susan B.
CS Lab. Bioorganic Chem., Sloan-Kettering Inst. Cancer Res., New York, NY,
10021, USA
SO Tetrahedron Lett. (1997), 38(26), 4529-4532
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier
DT Journal
LA English
OS CASREACT 127:108793
AB The title compds. have been synthesized in a convergent way by recourse
to
a Weiler type dianion construction.
IT 192370-82-4P
RL: BAC (Biological activity or effector, except adverse); RCT
(Reactant);
SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(stereoselective syntheses and evaluation of compds. in the
8-desmethylepothilone A series)
RN 192370-82-4 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7-trimethyl-16-[(1E)-1-
methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,13Z,16S)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT 192370-71-1P

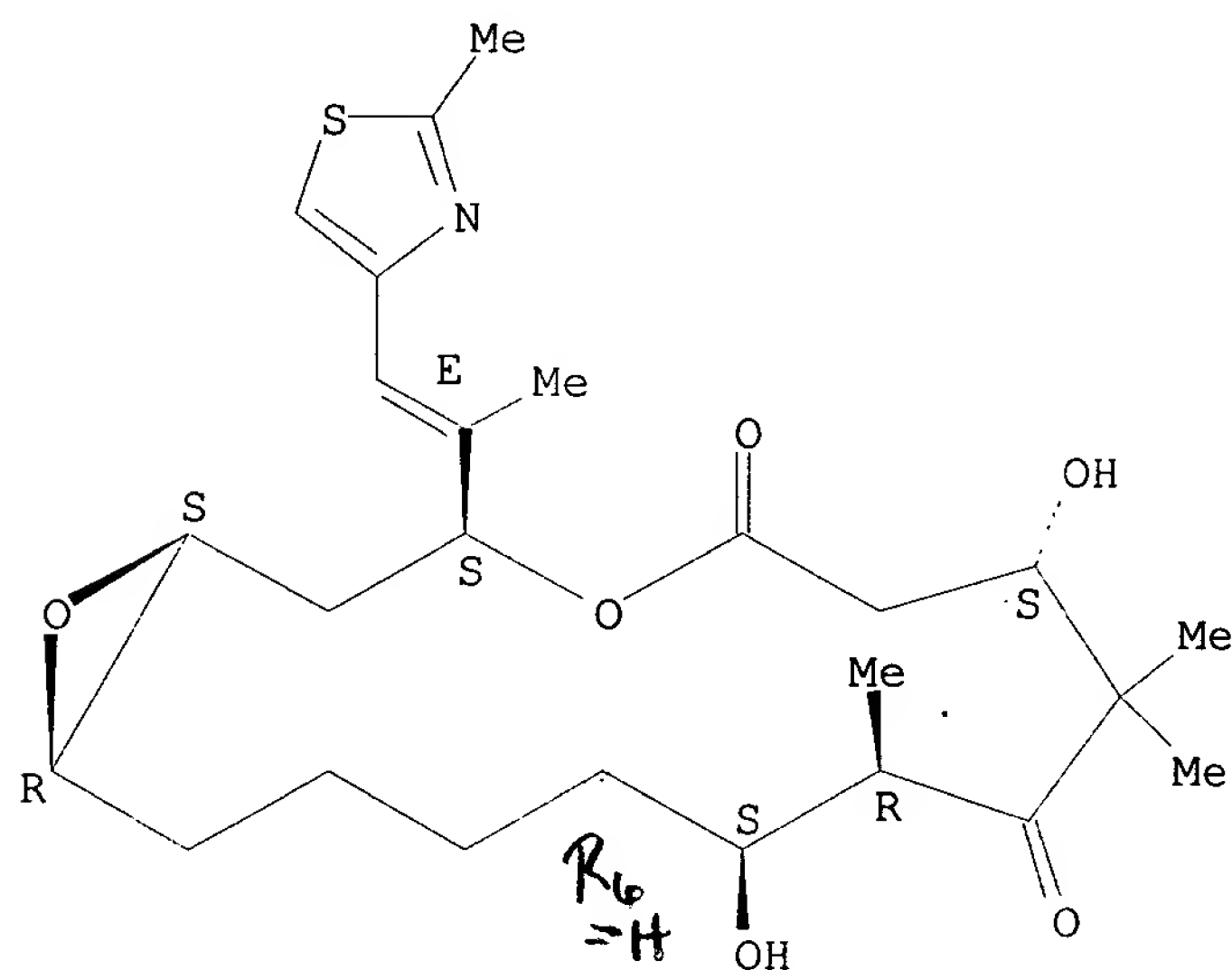
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(stereoselective syntheses and evaluation of compds. in the
8-desmethylepothilone A series)

RN 192370-71-1 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10-trimethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,16R)- (9CI) (CA INDEX NAME)

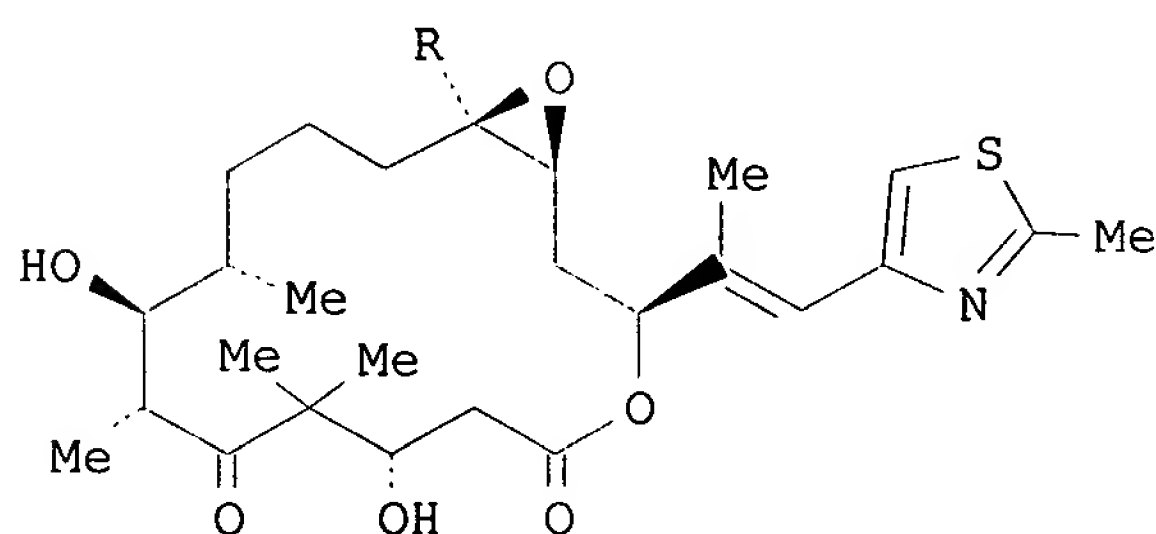
Absolute stereochemistry.

Double bond geometry as shown.



=> D BIB ABS HITSTR 26

Proviso
L20 ANSWER 26 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1997:330310 CAPLUS
DN 127:4950
TI Synthesis of epothilones A and B in solid and solution phase
AU Nicolaou, K. C.; Winssinger, N.; Pastor, J.; Ninkovic, S.; Sarabia, F.;
He, Y.; Vourloumis, D.; Yang, Z.; Li, T.; Giannakakou, P.; Hamel, E.
CS Dep. Chemistry, Skaggs Inst. Chem. Biology, Scripps Res. Inst., La Jolla,
CA, 92037, USA
SO Nature (London) (1997), 387(6630), 268-272
CODEN: NATUAS; ISSN: 0028-0836
PB Macmillan Magazines
DT Journal
LA English
OS CASREACT 127:4950
GI



I

AB Epothilones A (I; R = H) and B (I: R = Me), two compds. that were recently

isolated from myxobacterium Sorangium cellulosum strain 90, have generated

intense interest among chemists, biologists and clinicians owing to the structural complexity, unusual mechanism of interaction with microtubules and anticancer potential of these mols. Like taxol, they exhibit cytotoxicity against tumor cells by inducing microtubule assembly and stabilization, even in taxol-resistant cell lines. Following the structural elucidation of these mols. by X-ray crystallog. in 1996, several synthesis of epothilones A and B have been reported, indicative of

the potential importance of these mols. in the cancer field. Here we report the first solid-phase synthesis of epothilone A, the total synthesis of epothilone B, and the generation of a small epothilone library. The solid-phase synthesis applied here to epothilone A could open up new possibilities in natural-product synthesis and, together with soln.-phase synthesis of other epothilones, paves the way for the generation of large combinatorial libraries of these important mols. for biol. screening.

IT 188260-10-8P 189453-40-5P

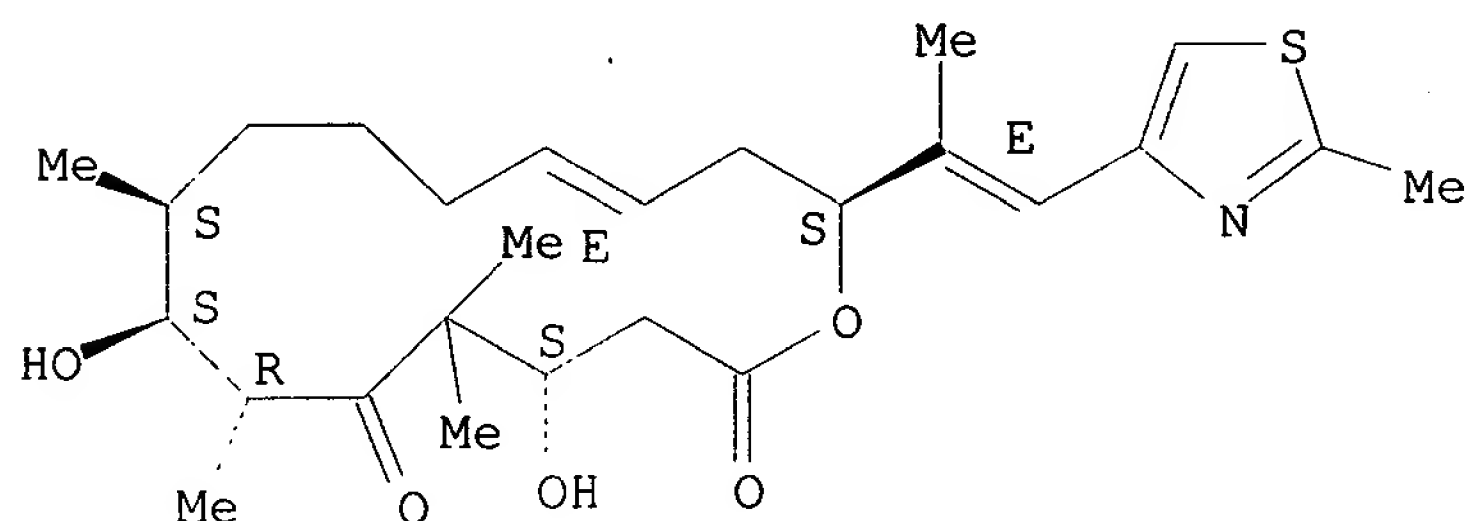
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of a combinatorial library via solid-phase synthesis of
epothilone A and soln.-phase synthesis of epothilone B)

RN 188260-10-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.

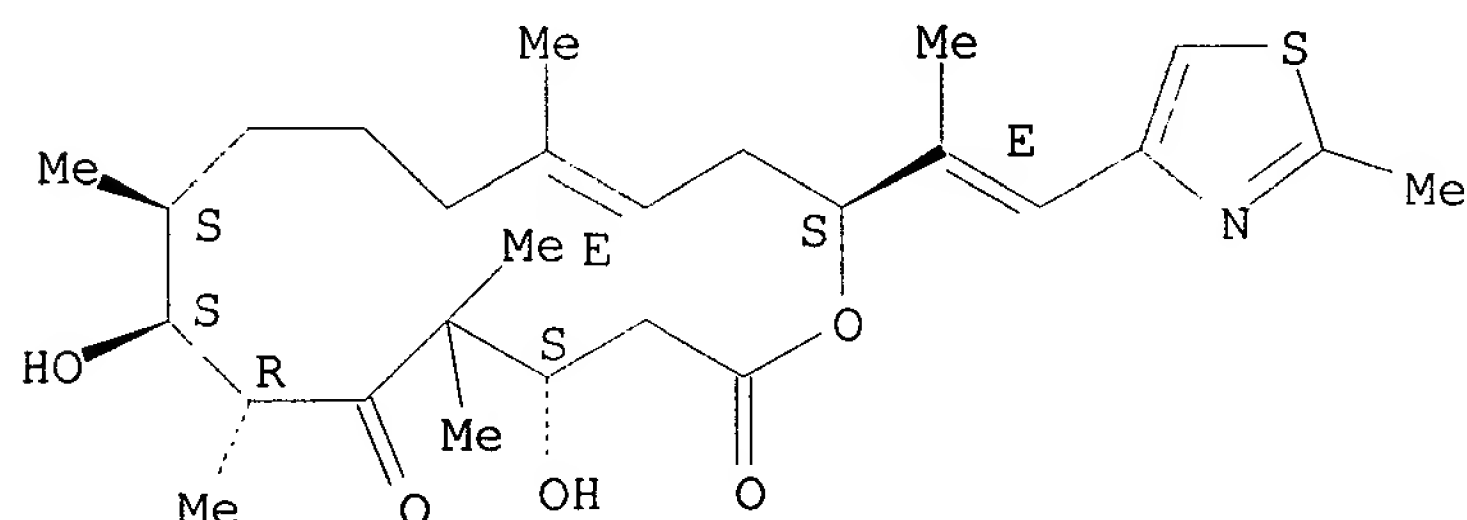


RN 189453-40-5 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.



IT 190369-91-6P 190370-10-6P 190370-11-7P
190370-13-9P

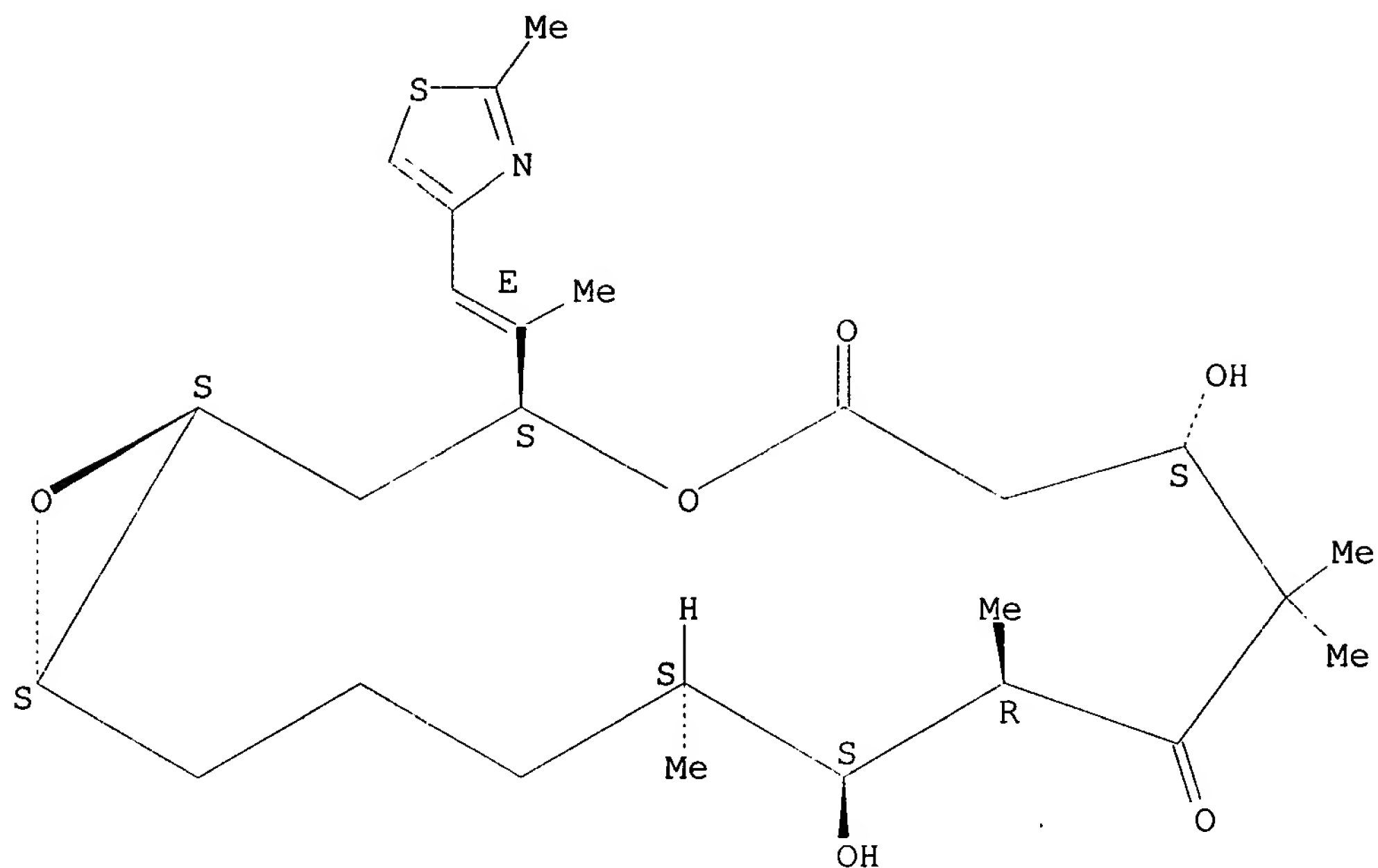
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of a combinatorial library via solid-phase synthesis of
epothilone A and soln.-phase synthesis of epothilone B)

RN 190369-91-6 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-
tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

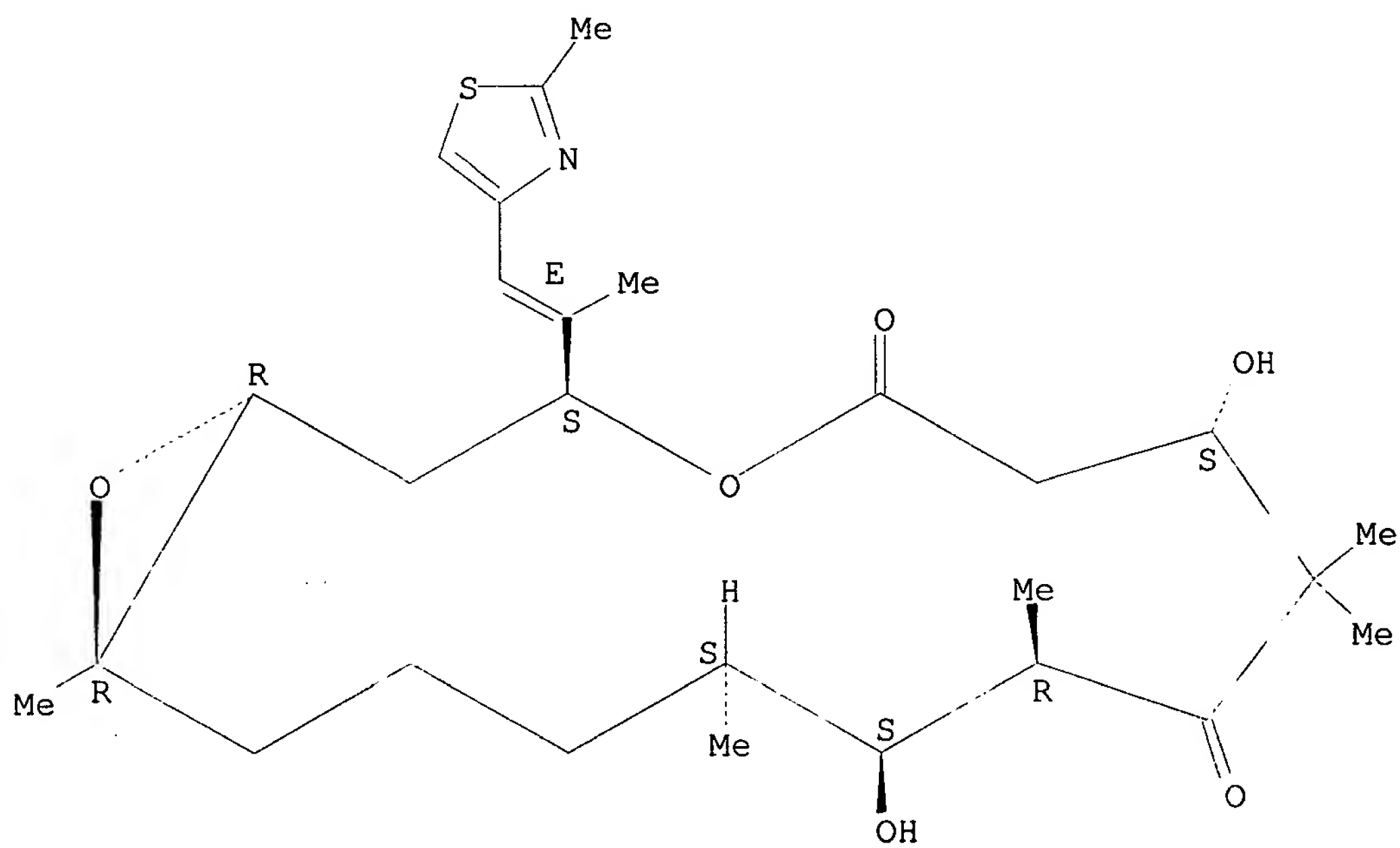
Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.



RN 190370-10-6 CAPLUS

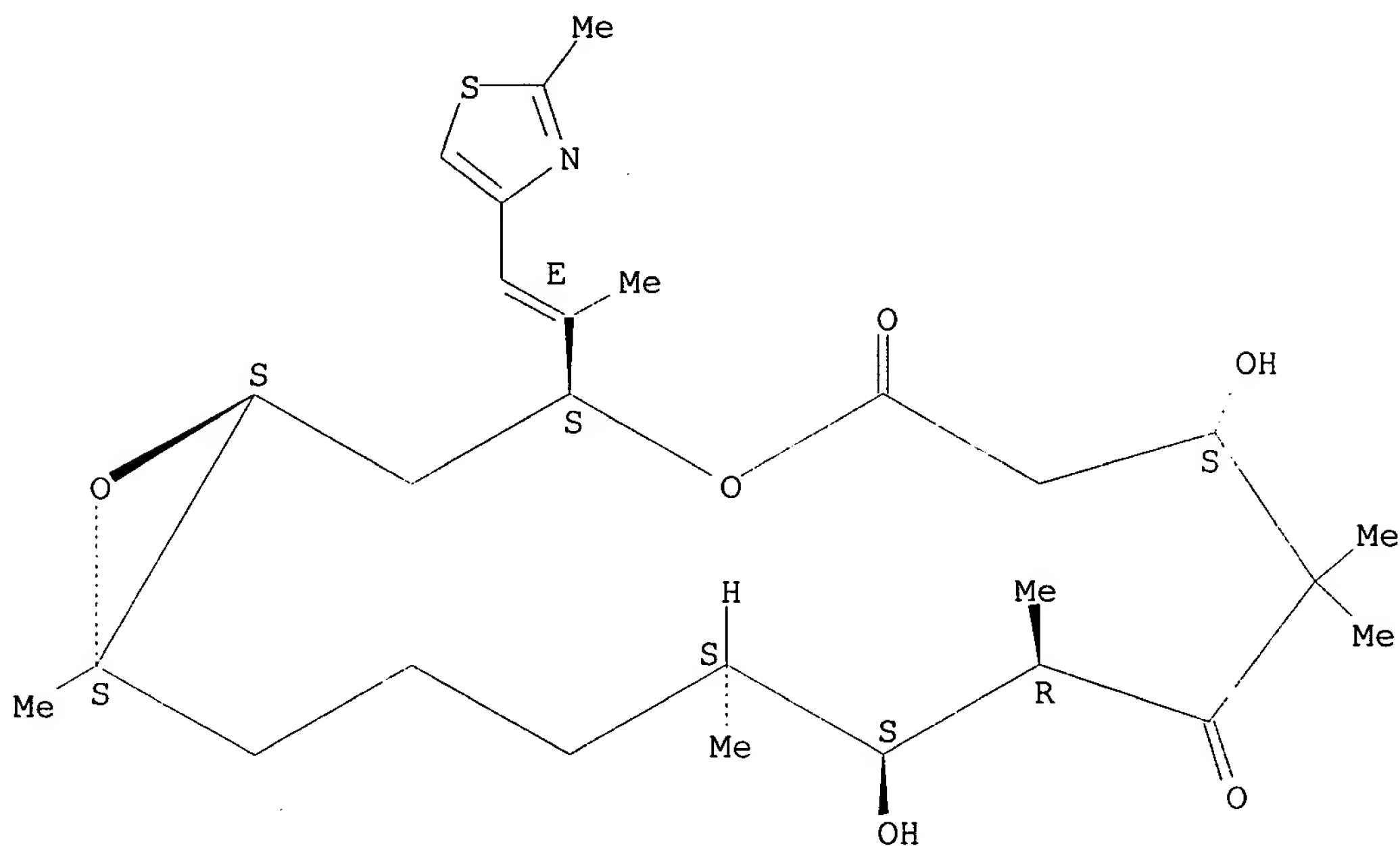
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
, (1R,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

RN 190370-11-7 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-
 8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
 , (1S,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
 Double bond geometry as shown.



RN 190370-13-9 CAPLUS
 CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-
 8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
 [1R-[1R*,3S*(E),7S*,10R*,11S*,12S*,16S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

=> D BIB ABS HITSTR 27

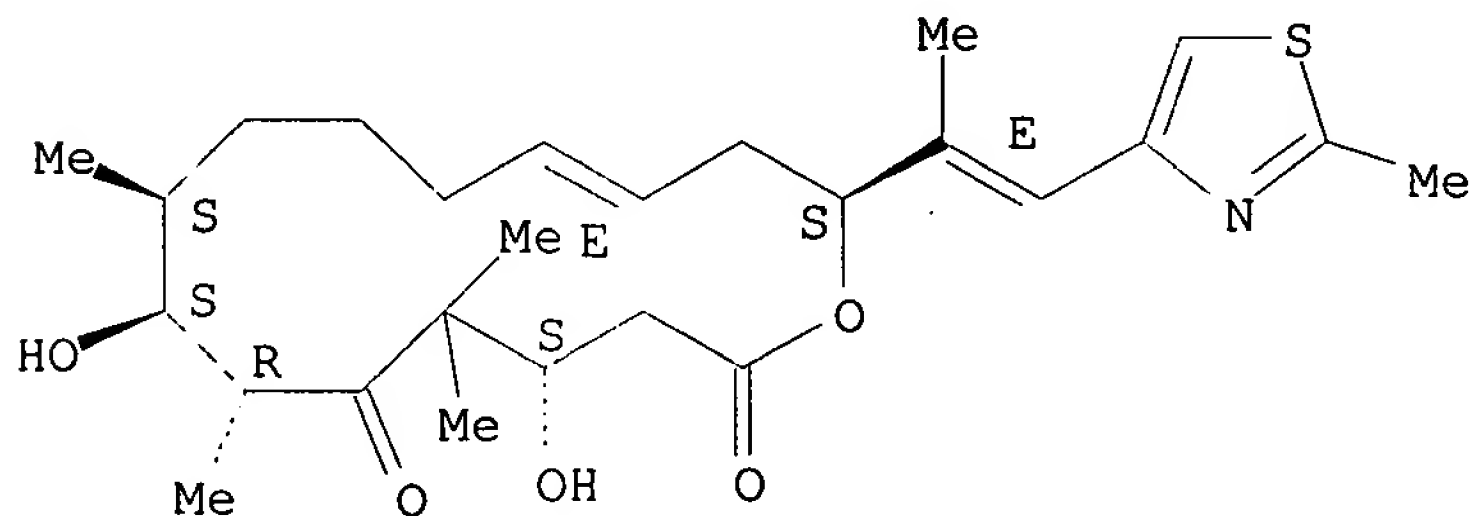
Proviso

~~120~~ ANSWER 27 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1997:302059 CAPLUS
DN 127:4948
TI Total synthesis of (-)-epothilone B: an extension of the Suzuki coupling method and insights into structure-activity relationships of the epothilones
AU Su, Dai-Shi; Meng, Dongfang; Bertinato, Peter; Balog, Aaron; Sorensen, Erik J.; Danishefsky, Samuel J.; Zheng, Yu-Huang; Chou, Ting-Chao; He, Lifeng; Horwitz, Susan B.
CS Laboratory for Bioorganic Chemistry, Sloan-Kettering Institute for Cancer Research, New York, NY, 10021, USA
SO Angew. Chem., Int. Ed. Engl. (1997), 36(7), 757-759
CODEN: ACIEAY; ISSN: 0570-0833
PB VCH
DT Journal
LA English
OS CASREACT 127:4948
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB (-)-Epothilone B (I; R = Me, X = O) and desoxyepothilone B (I; R = Me, X =
= bond) were prep'd. via Suzuki coupling of (Z)-vinyl iodide II with borane III. I (R = H, Me, X = O, bond) and the E-isomers of I (R = H, Me, X = bond) were tested for efficacy against drug-sensitive and resistant CCRF-CEM cell lines (IC50 = 0.0004 - 0.262 .mu.M).
IT 188260-10-8, trans-Desoxyepothilone A 189453-40-5,
trans-Desoxyepothilone B
RL: BAC (Biological activity or effector, except adverse); BIOL
(Biological study)
(synthesis of epothilone B via a Suzuki coupling and insights into antitumor structure-activity relationships)
RN 188260-10-8 CAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 189453-40-5 CAPLUS

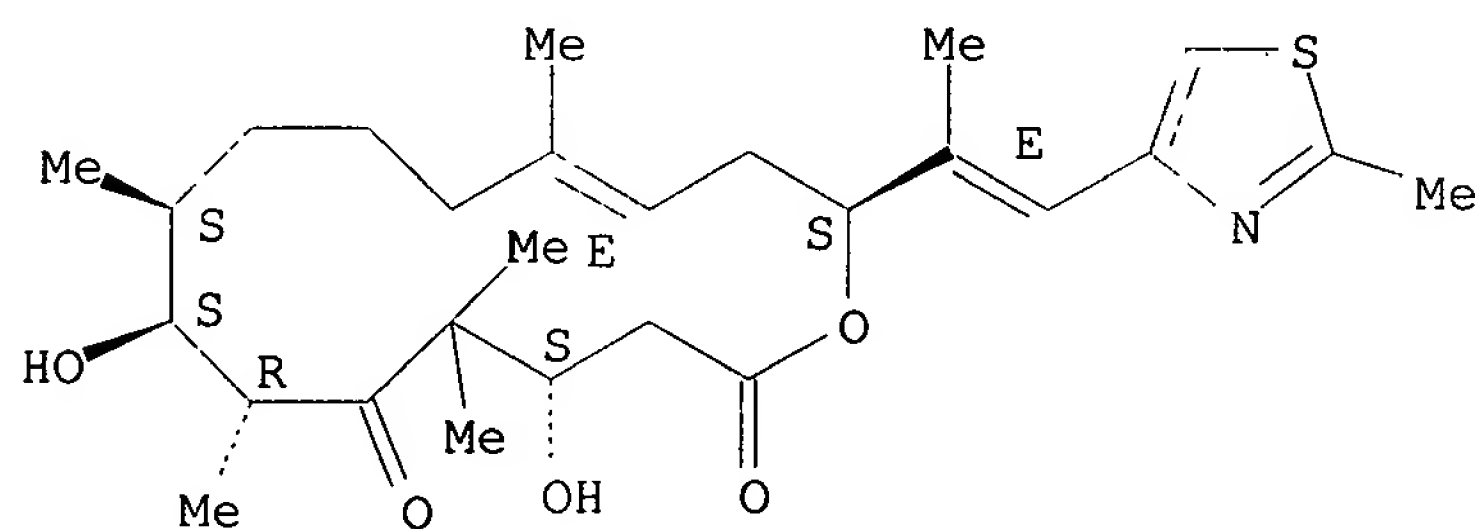
CN Oxacyclohexadec-13-ene-2,6-dione,

4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-

[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.



=> D BIB ABS HITSTR 28

PROVIDE
X
L20 ANSWER 28 OF 28 CAPLUS COPYRIGHT 1999 ACS
AN 1997:175662 CAPLUS
DN 126:225133
TI Remote Effects in Macrolide Formation through Ring-Forming Olefin
Metathesis: An Application to the Synthesis of Fully Active Epothilone
Congeners
AU Meng, Dongfang; Su, Dai-Shi; Balog, Aaron; Bertinato, Peter; Sorensen,
Erik J.; Danishefsky, Samuel J.; Zheng, Yu-Huang; Chou, Ting-Chao; He,
Lifeng; Horwitz, Susan B.
CS Laboratories for Bioorganic Chemistry and Biochemical Pharmacology,
Sloan-Kettering Institute for Cancer Research, New York, NY, 10021, USA
SO J. Am. Chem. Soc. (1997), 119(11), 2733-2734
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 126:225133
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A ring closing olefin metathesis strategy for the synthesis of the
previously encountered desoxyepothilone A (I) is described. A merging of
the alkyl segment II (carbons 12-21) and acyl segment III (carbons 3-11)
through an intermol. aldol-condensation reaction provided substrates
needed for ring closing olefin metathesis. Thus, thiazole IV underwent
olefin metathesis in C₆H₆ contg. 50 mol % (PhCH:)[P(cyclohexyl)₃]₂RuCl₂
to

give 65% II and its E-isomer (Z:E 1:2). The results of these cyclization
indicate a remarkable sensitivity to permutations of functionality at
centers remote from the site of olefin metathesis. The in vitro biol.
activity of E and Z desoxyepothilone as well as several related congeners
is also described. I has IC₅₀ range of 0.012-0.022 .mu.M against
drug-sensitive and -resistant human leukemic CCRF-CEM cell lines.

IT 188259-95-2P

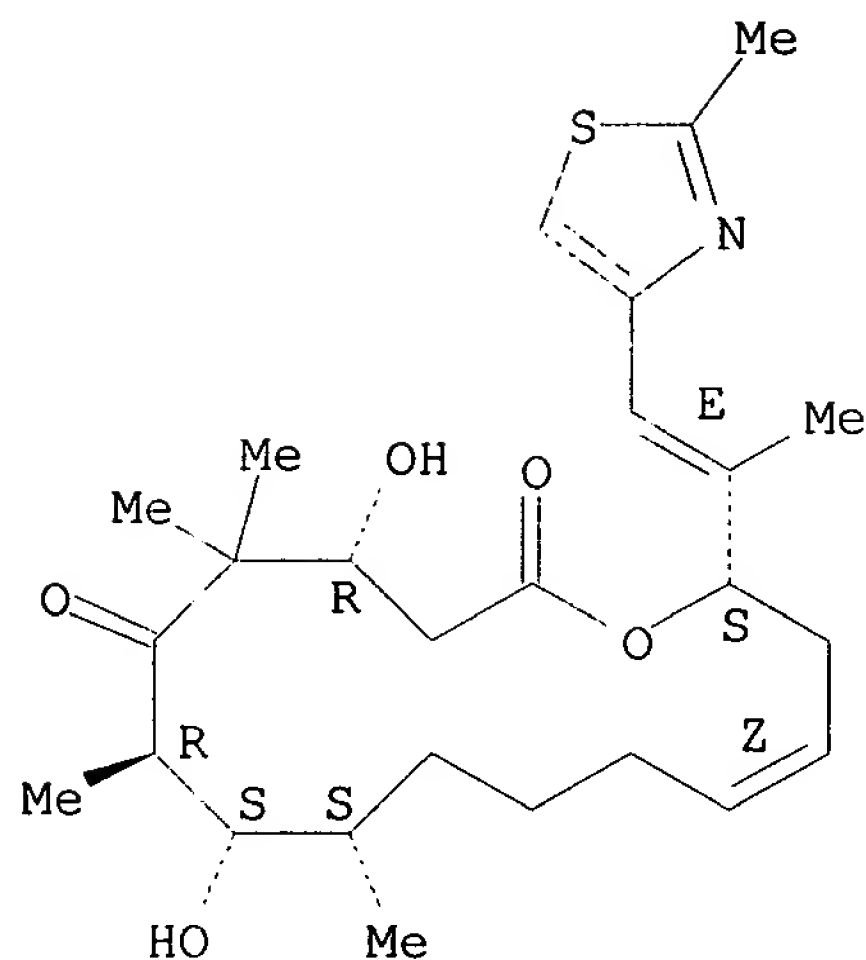
RL: BAC (Biological activity or effector, except adverse); RCT
(Reactant);

SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of antitumor epothilone congeners via ring-forming olefin
metathesis)

RN 188259-95-2 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



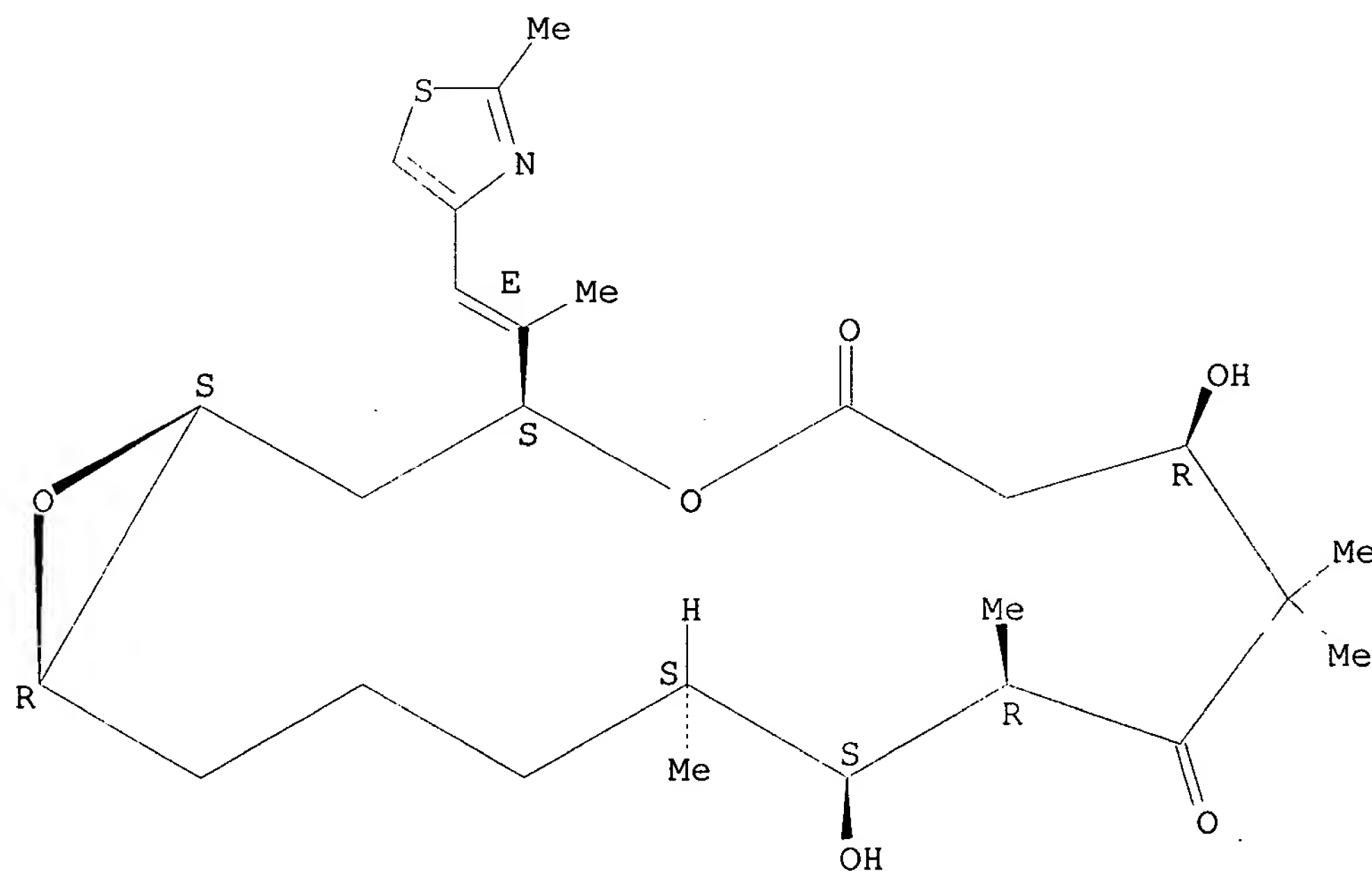
IT 188260-09-5P, (-)-3-epi-Epothilone A 188260-10-8P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of antitumor epothilone congeners via ring-forming olefin metathesis)

RN 188260-09-5 CAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7R,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

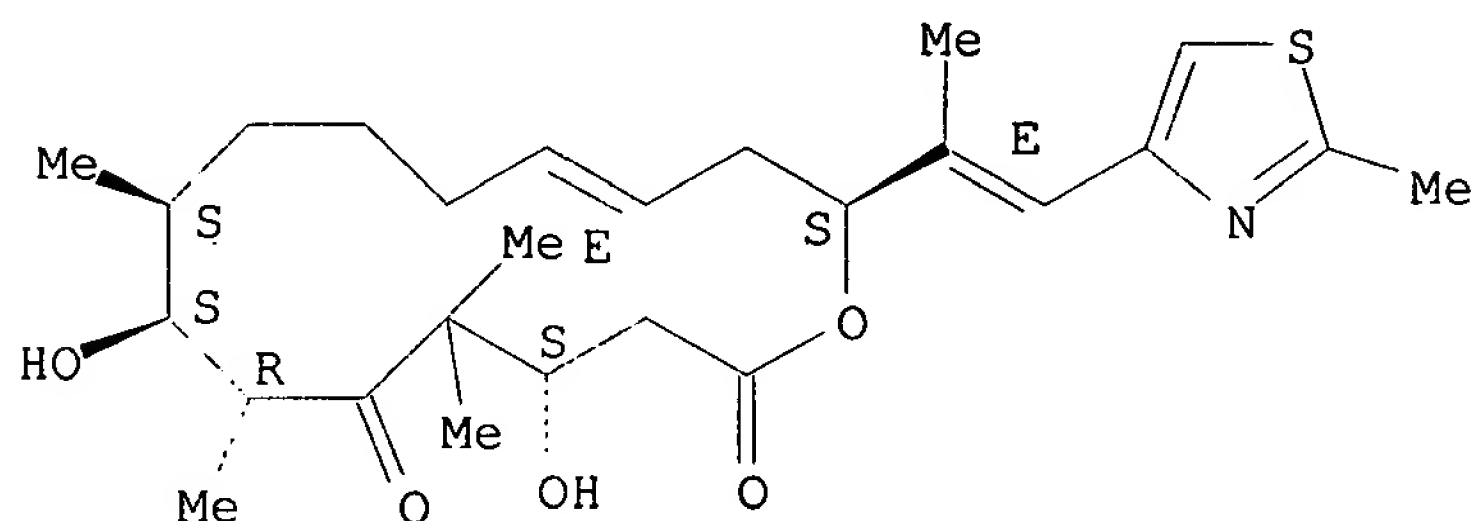


RN 188260-10-8 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-

[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



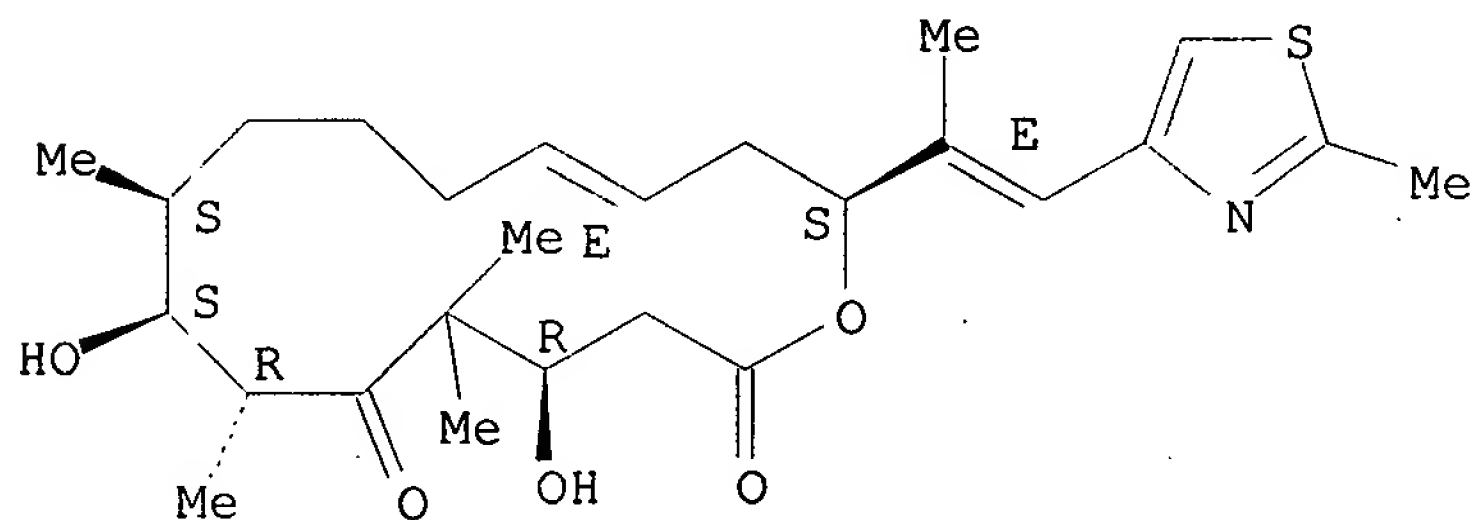
IT 188260-34-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of antitumor epothilone congeners via ring-forming olefin
metathesis)

RN 188260-34-6 CAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4R,7R,8S,9S,13E,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



=> d: his

(FILE 'HOME' ENTERED AT 09:17:52 ON 21 JUN 1999)

FILE 'HCAPLUS' ENTERED AT 09:18:00 ON 21 JUN 1999

L1 19 S VITE G?/AU
L2 13143 S KIM S?/AU
L3 17 S BORZILLERI R?/AU
L4 1 S L1 AND L2 AND L3
L5 13176 S L1-L4
L6 3 S L5 AND ?EPOTHILON?
L7 3 S L4 OR L6
SELECT RN L7 1-3

FILE 'REGISTRY' ENTERED AT 09:19:13 ON 21 JUN 1999

FILE 'REGISTRY' ENTERED AT 09:19:20 ON 21 JUN 1999

L8 75 S E1-76

FILE 'HCAPLUS' ENTERED AT 09:19:39 ON 21 JUN 1999

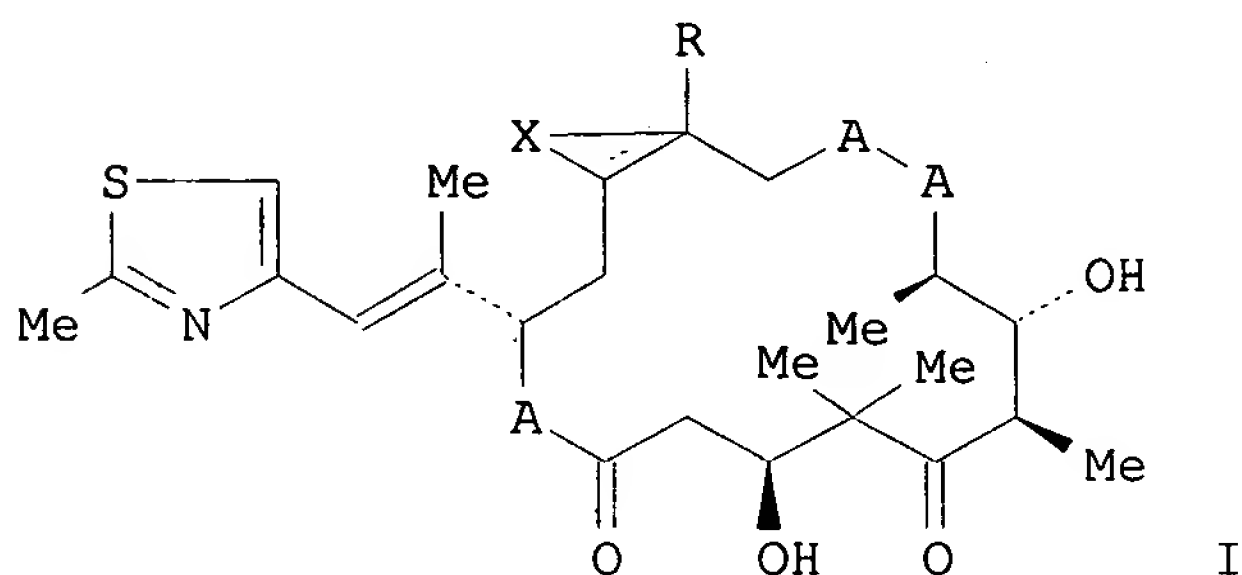
L9 1 S L7 AND L8
L10 2 S L7 NOT L9

Inventor Search

=> d bib abs hitstr 19

L9 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 1999 ACS
AN 1999:64791 HCAPLUS
DN 130:139205
TI syntheses of **epothilone** derivatives and intermediates for use in
treatment of hyperproliferative cellular disease
IN **Vite, Gregory D.; Borzilleri, Robert M.; Kim,**
Soong-hoon; Johnson, James A.
PA Bristol-Myers Squibb Company, USA
SO PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9902514	A2	19990121	WO 98-US12550	19980616
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
PRAI	US 97-51951		19970708		
	US 97-67524		19971204		
OS	MARPAT 130:139205				
GI					



AB Syntheses of **epothilone** derivs. (I) (R = H, Me; A = CH₂, O, NH; X = H when bond double, .alpha.-epoxy when bond single) and intermediates for use in treatment of hyperproliferative cellular disease are described.

IT 152044-54-7

RL: BAC (Biological activity or effector, except adverse); RCT (Reactant);

THU (Therapeutic use); BIOL (Biological study); USES (Uses)

Searched by John Dantzman

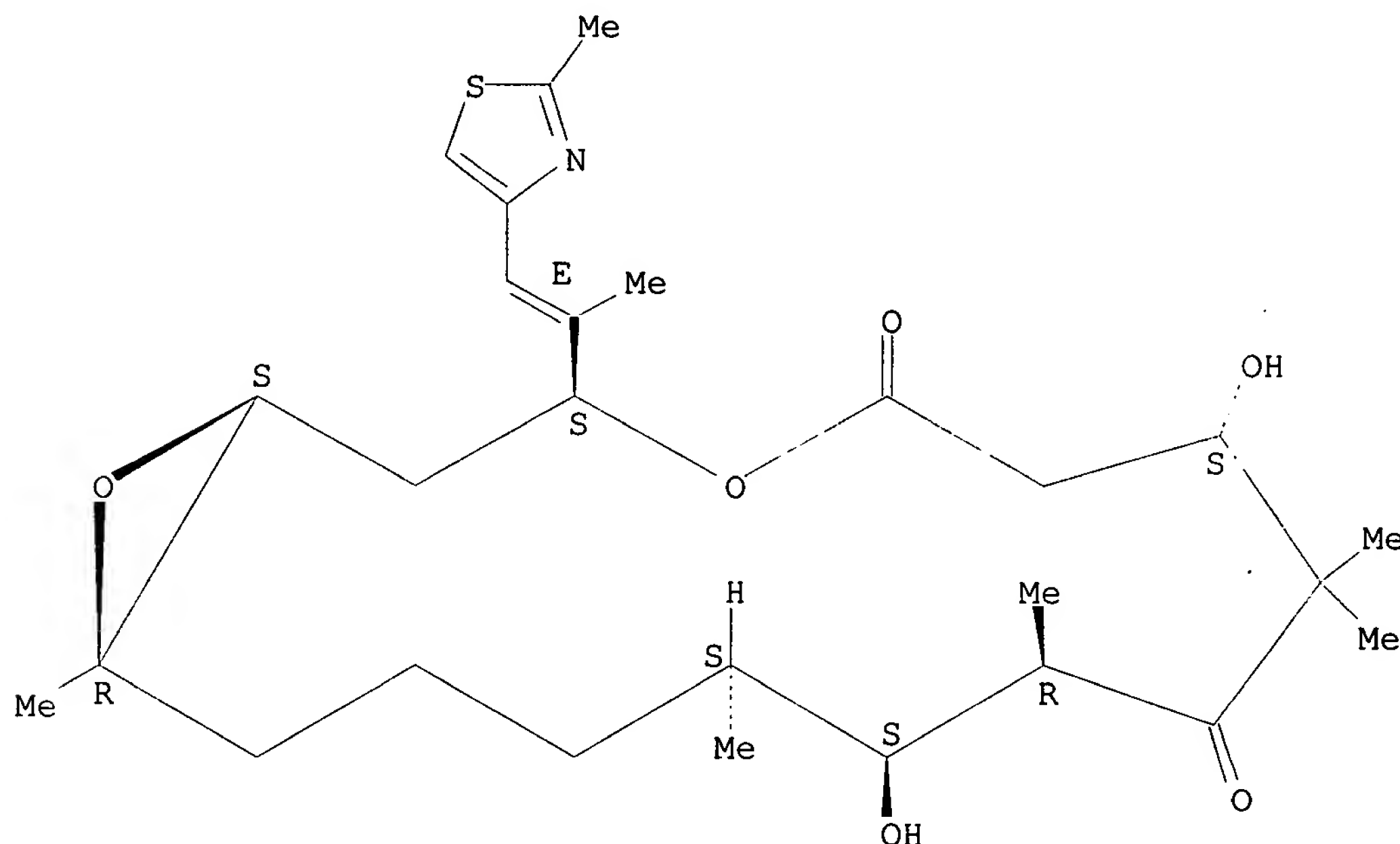
(syntheses of **epothilone** analogs and intermediates for use in treatment of hyperproliferative cellular disease)

RN 152044-54-7 HCAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



IT 186692-73-9P, Epothilone C 219989-84-1P
219989-85-2P 219989-87-4P 219990-05-3P
219990-06-4P 219990-07-5P

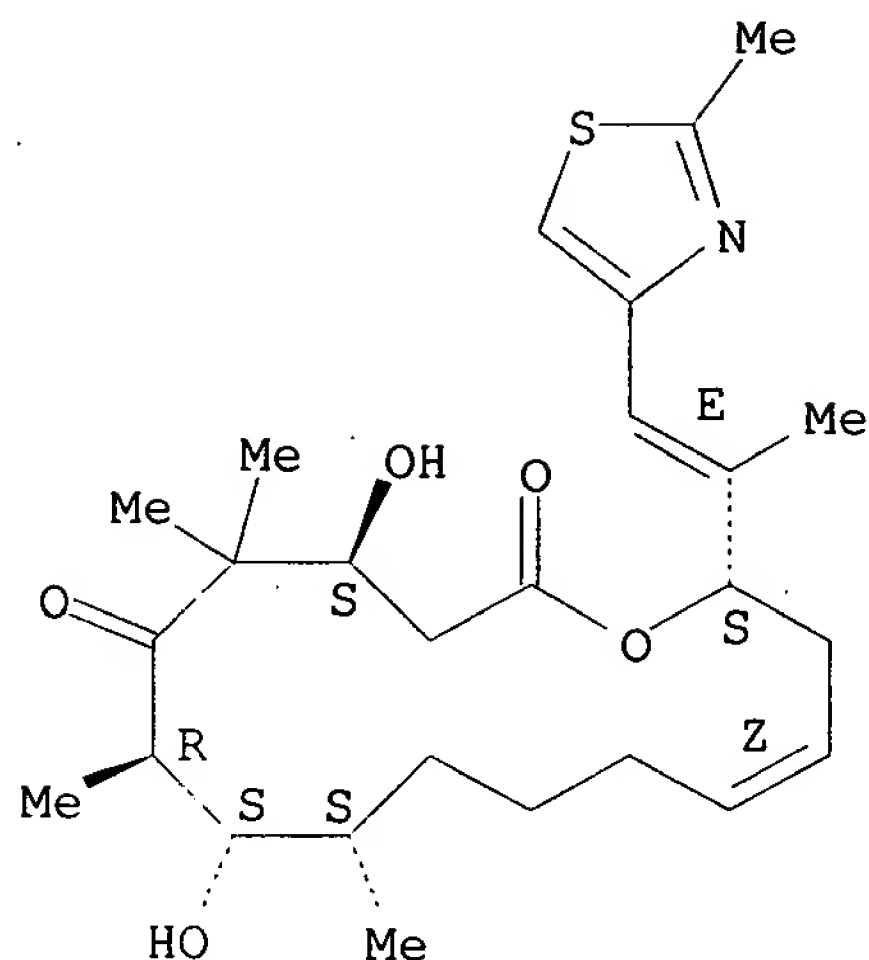
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(syntheses of **epothilone** analogs and intermediates for use in treatment of hyperproliferative cellular disease)

RN 186692-73-9 HCAPLUS

CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



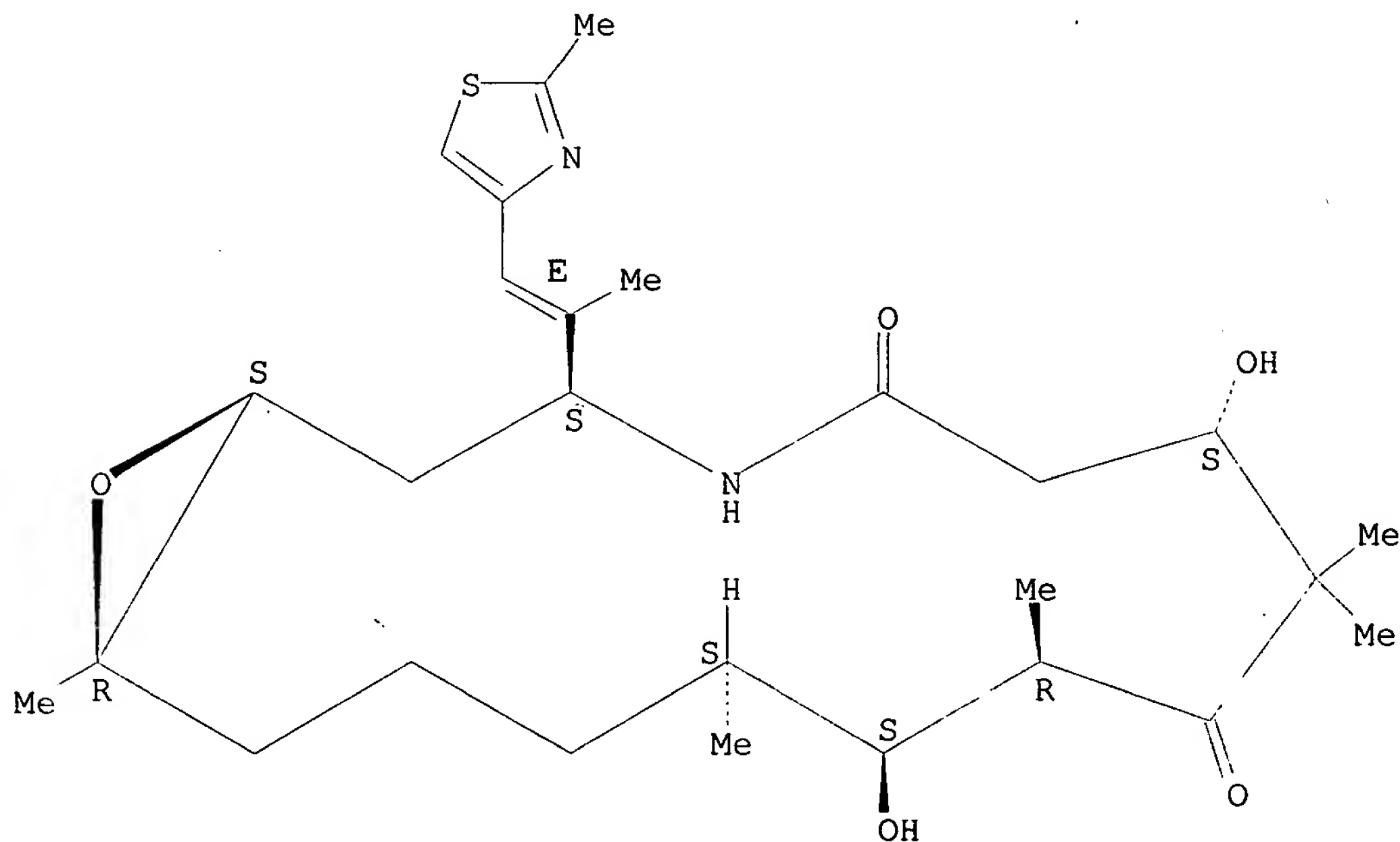
RN 219989-84-1 HCAPLUS

CN 17-Oxa-4-azabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



RN 219989-85-2 HCAPLUS

CN 17-Oxa-4-azabicyclo[14.1.0]heptadecane-5,9-dione,

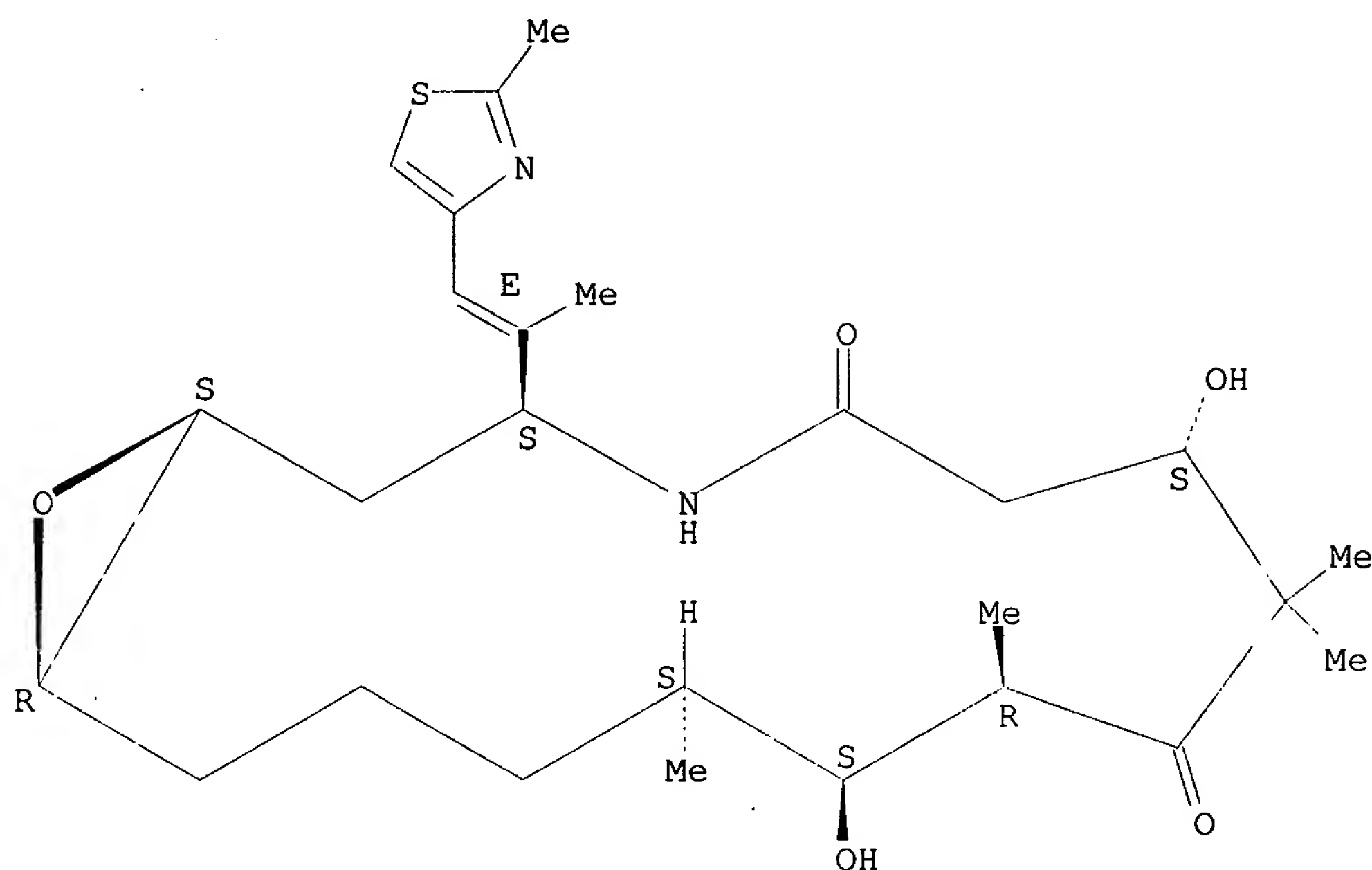
7,11-dihydroxy-8,8,10,12-

tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,

Searched by John Dantzman

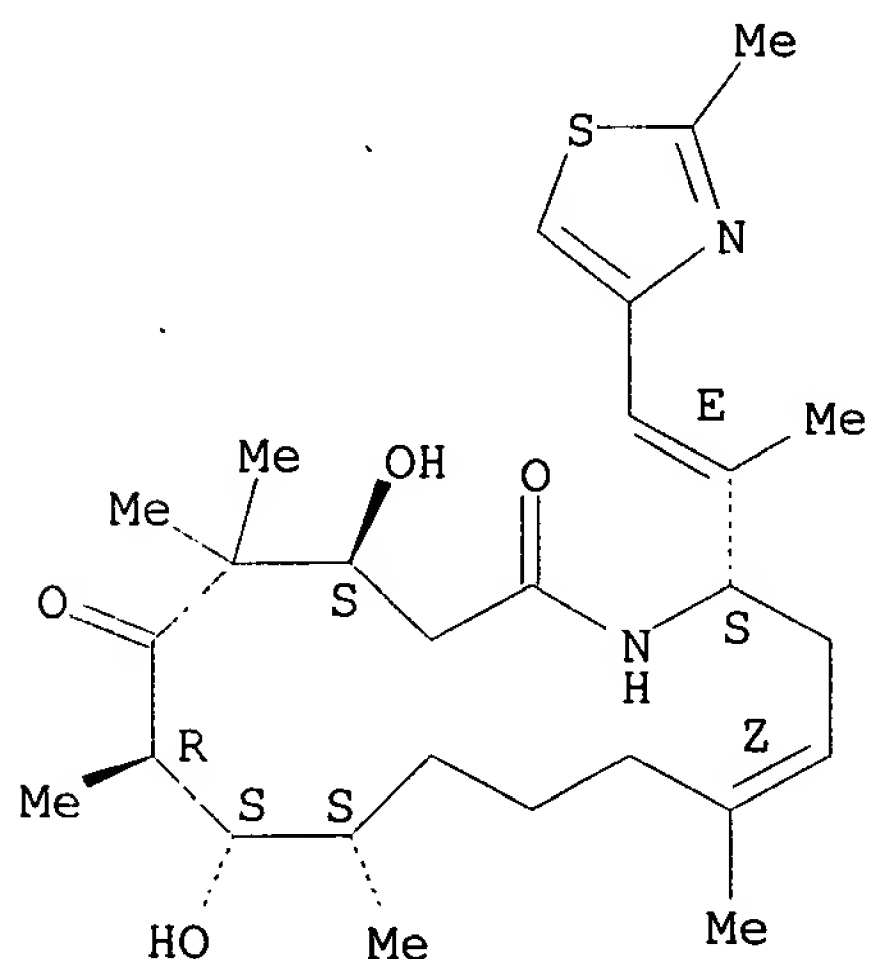
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-87-4 HCAPLUS
CN Azacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7,9,13-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



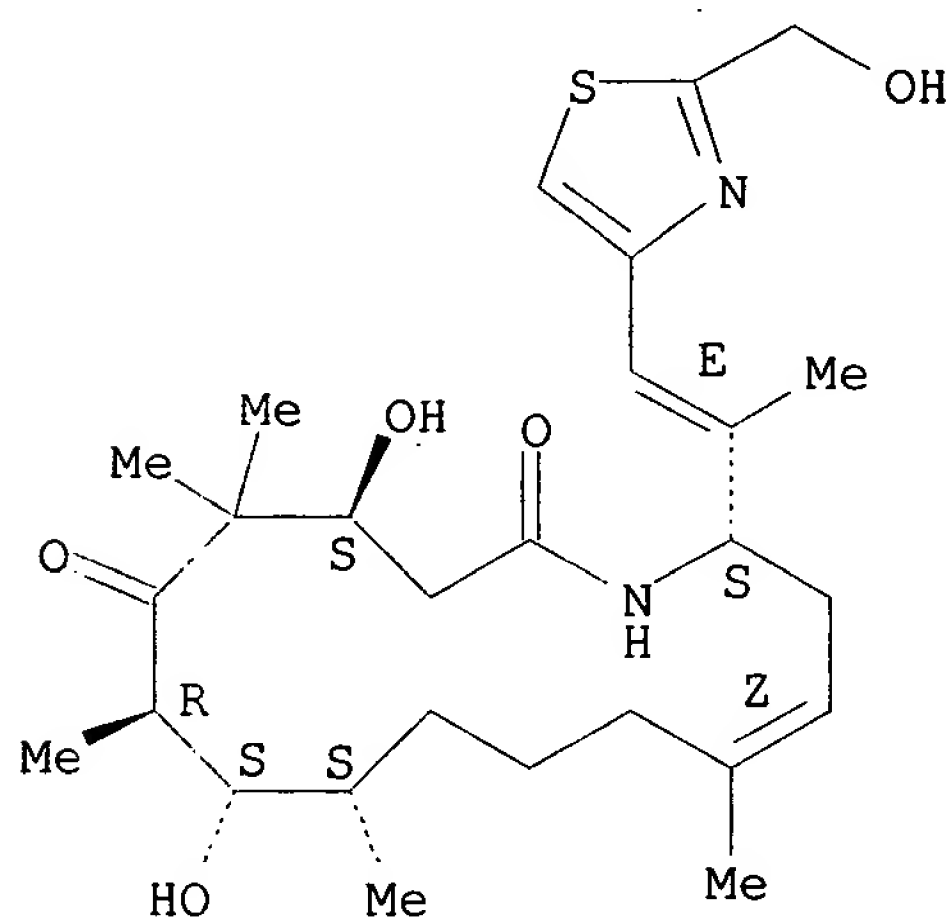
Searched by John Dantzman

RN 219990-05-3 HCAPLUS

CN Azacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-16-[(1E)-2-[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-5,5,7,9,13-pentamethyl-, (4S,7R,8S,9S,13Z,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

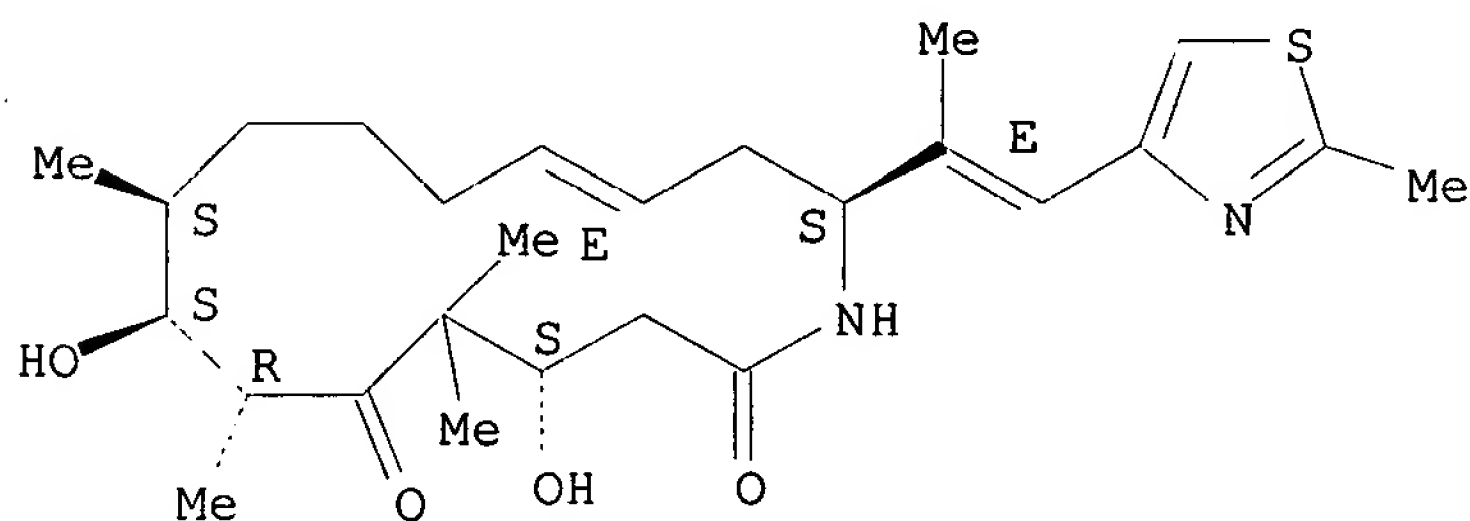


RN 219990-06-4 HCAPLUS

CN Azacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



RN 219990-07-5 HCAPLUS

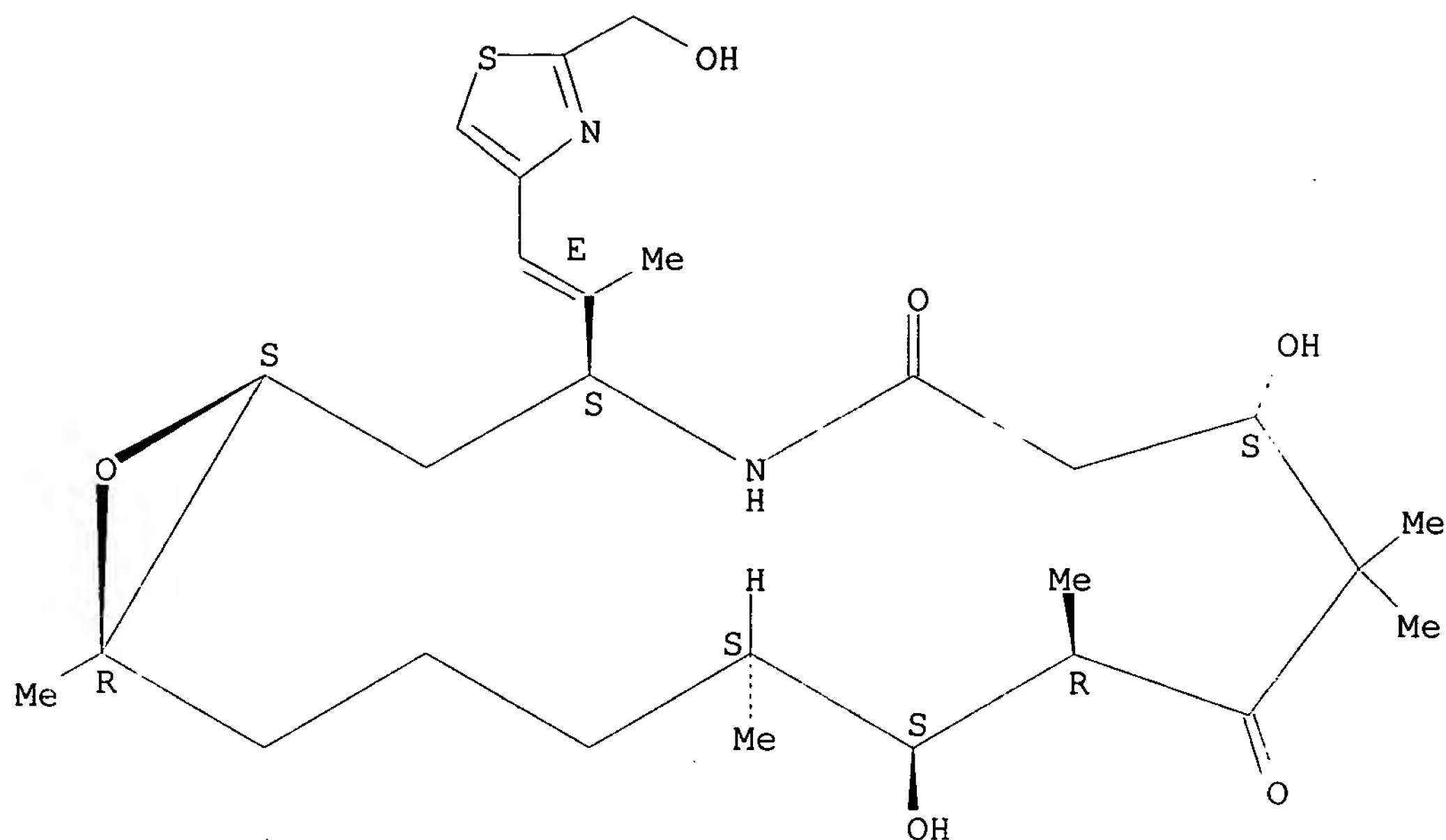
CN 17-Oxa-4-azabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3-[(1E)-2-

[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-8,8,10,12,16-pentamethyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

Searched by John Dantzman



IT 186692-57-9 219989-69-2 219989-70-5
 219989-71-6 219989-72-7 219989-73-8
 219989-74-9 219989-75-0 219989-76-1
 219989-77-2 219989-79-4 219989-80-7
 219989-81-8 219989-82-9 219989-83-0
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 219989-91-0 219989-92-1 219989-93-2
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 219990-00-8 219990-01-9 219990-02-0
 219990-03-1 219990-04-2 220009-36-9
 220009-41-6

RL: BAC (Biological activity or effector, except adverse); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (syntheses of **epothilone** analogs and intermediates for use in
 treatment of hyperproliferative cellular disease)

RN 186692-57-9 HCAPLUS

RN 219989-69-2 HCAPLUS

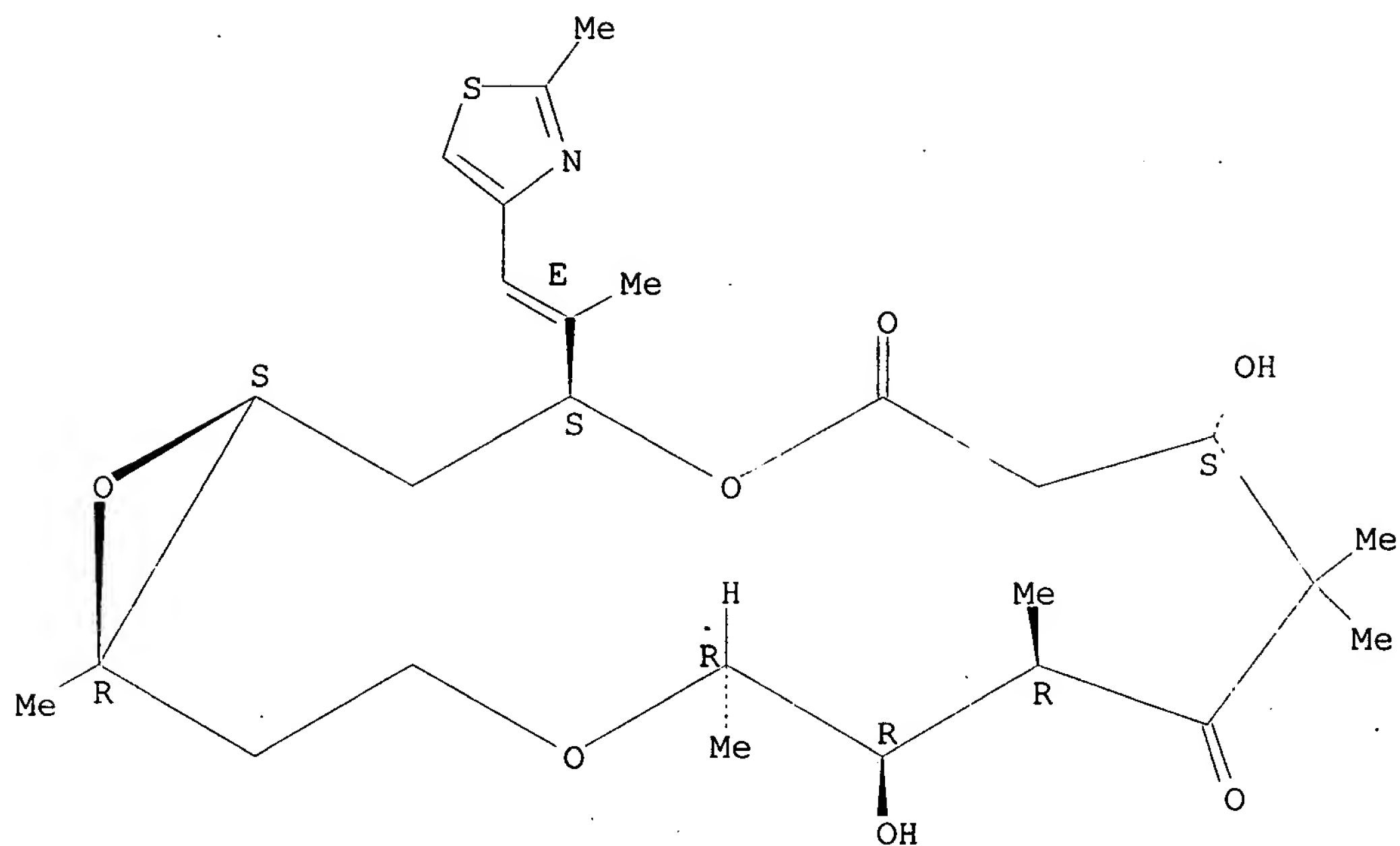
CN 4,13,17-Trioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
 , (1S,3S,7S,10R,11R,12R,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

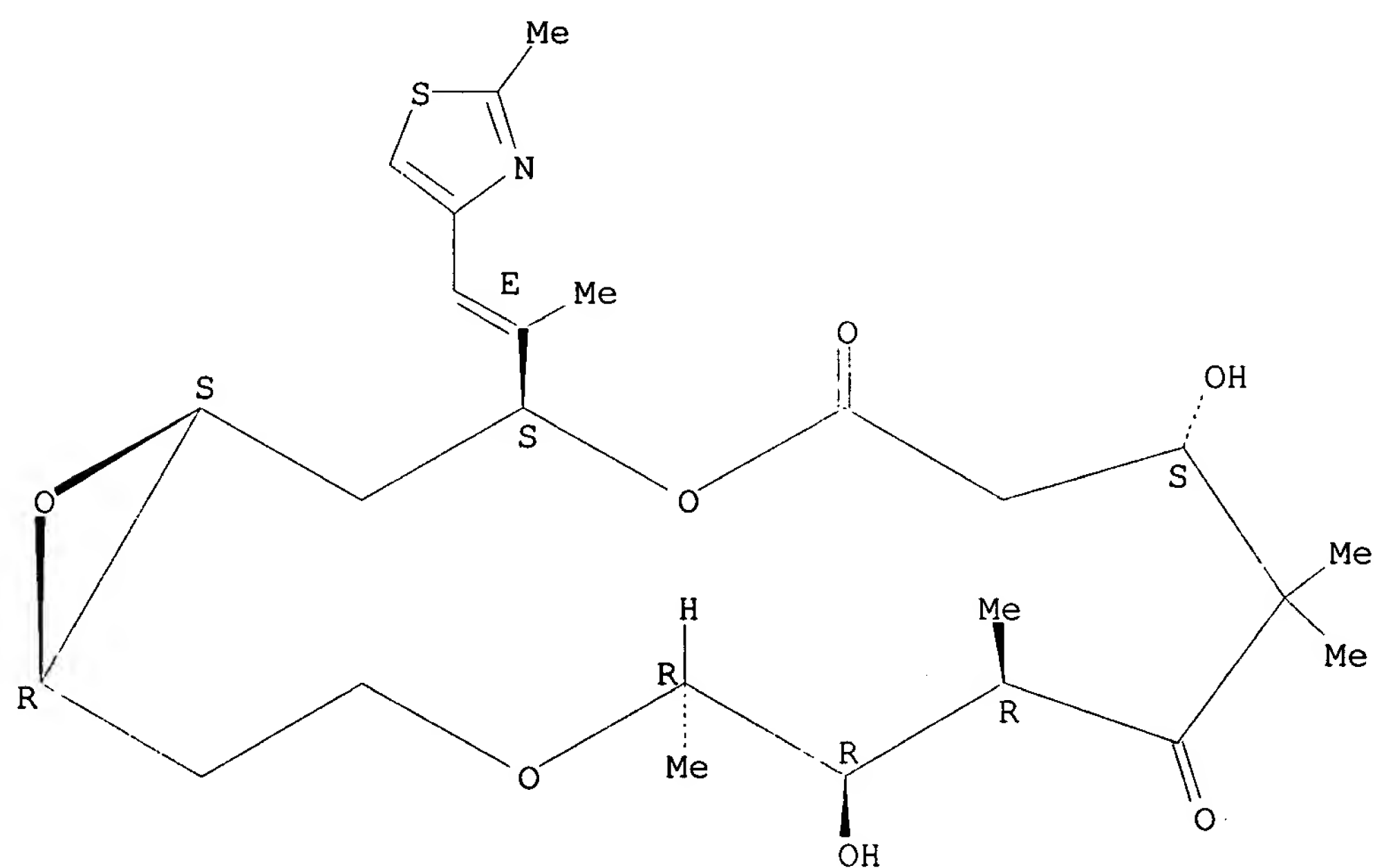
Searched by John Dantzman



RN 219989-70-5 HCAPLUS

CN 4,13,17-Trioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11R,12R,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



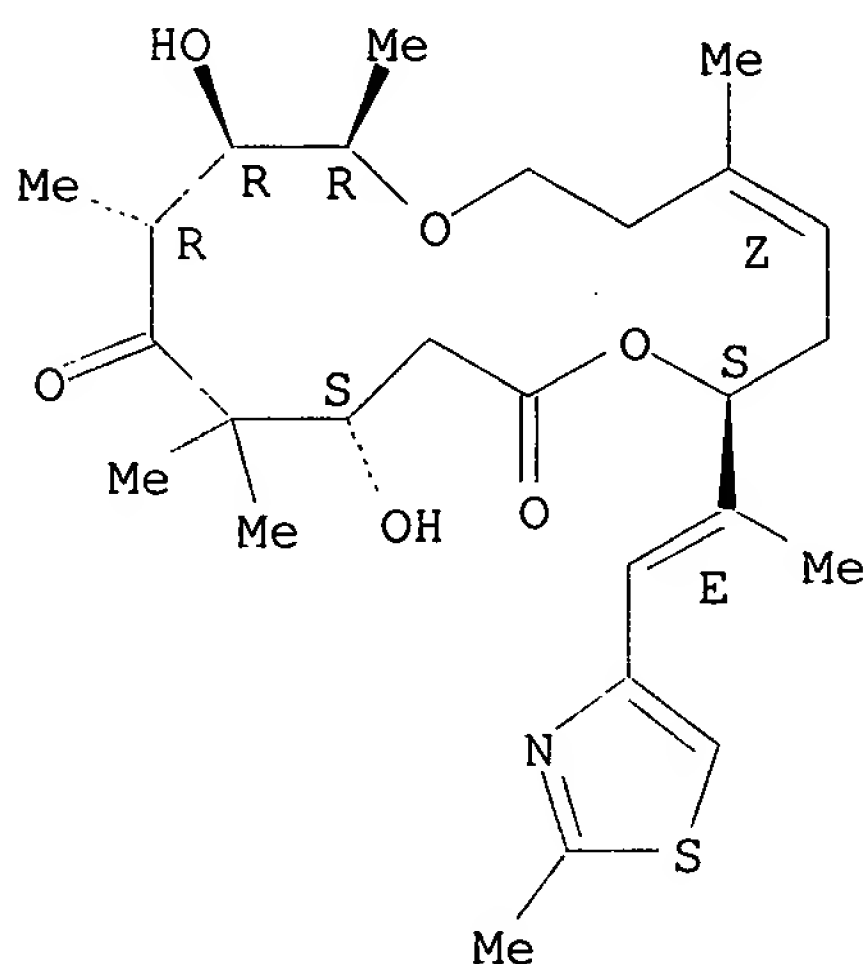
Searched by John Dantzman

RN 219989-71-6 HCAPLUS

CN 1,8-Dioxacyclohexadec-4-ene-9,13-dione, 11,15-dihydroxy-4,12,12,14,16-pentamethyl-7-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4Z,7S,11S,14R,15R,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

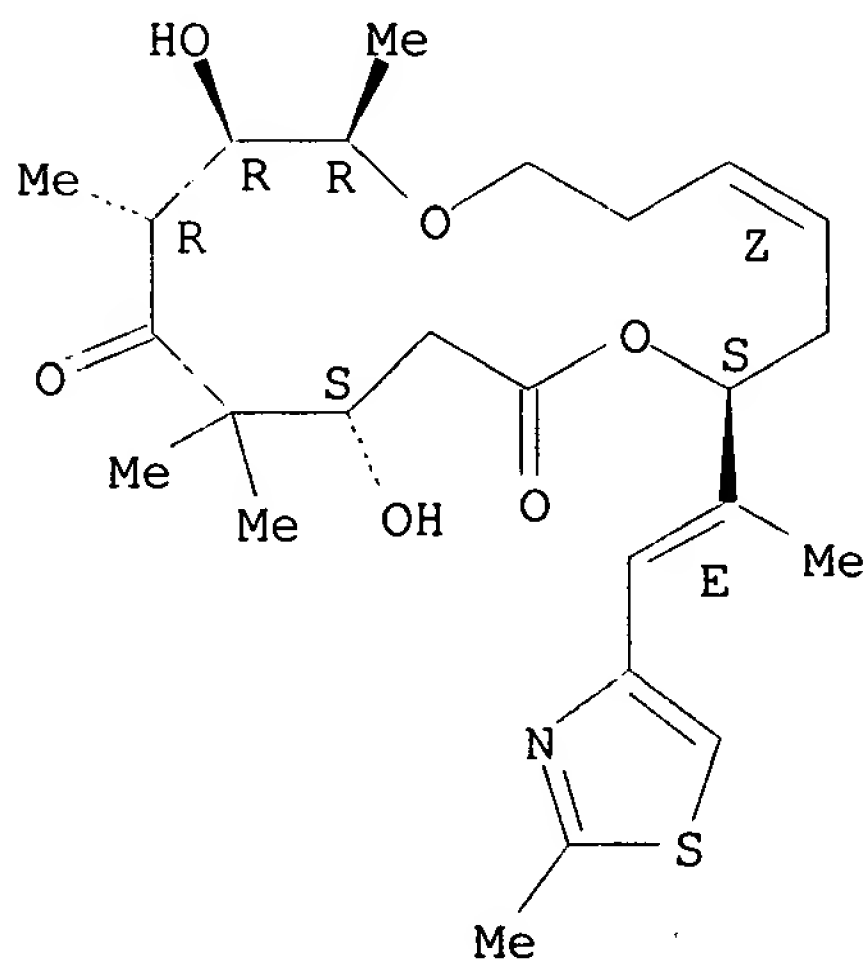


RN 219989-72-7 HCAPLUS

CN 1,8-Dioxacyclohexadec-4-ene-9,13-dione, 11,15-dihydroxy-12,12,14,16-tetramethyl-7-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4Z,7S,11S,14R,15R,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

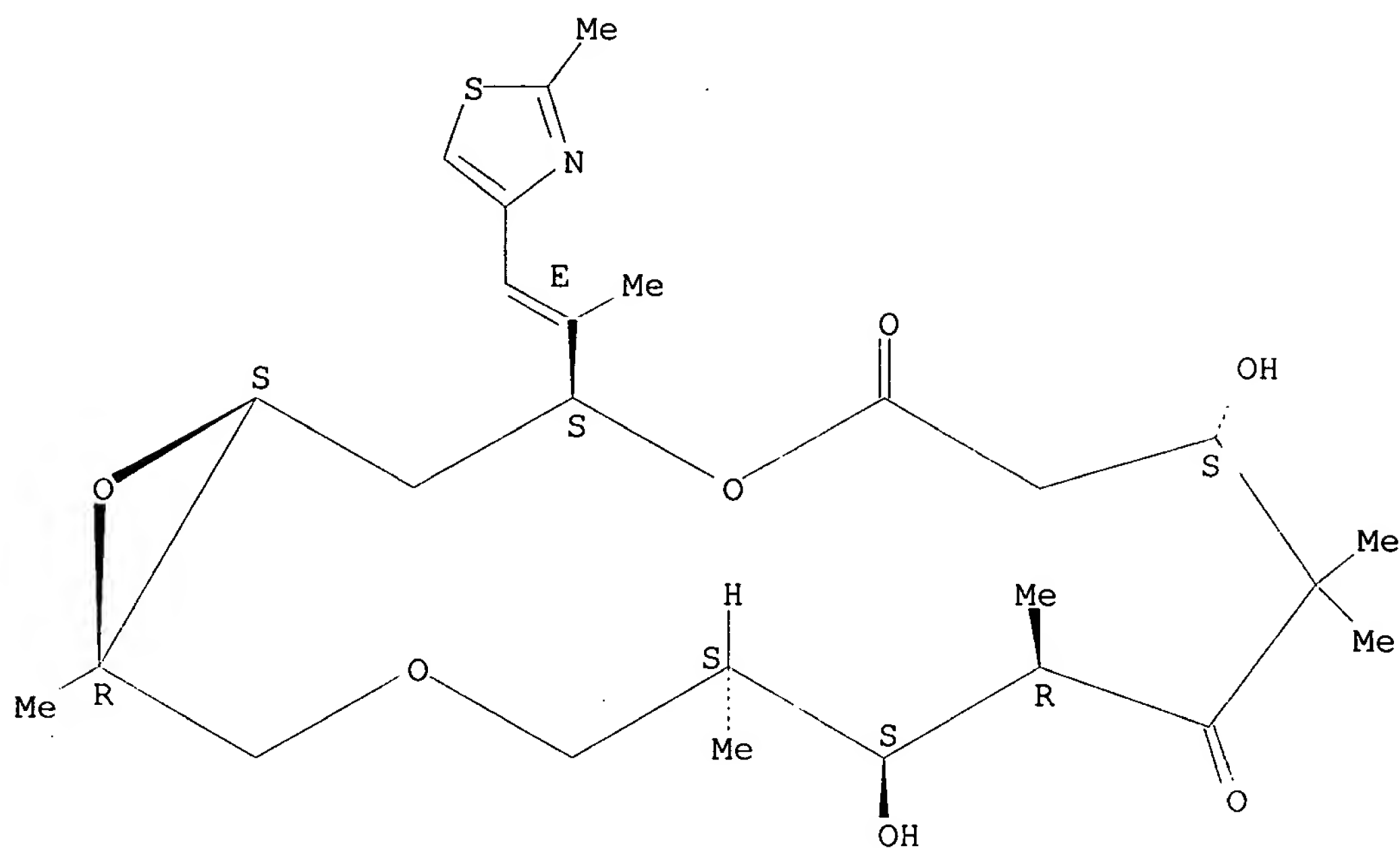


RN 219989-73-8 HCAPLUS

CN 3,13,17-Trioxabicyclo[14.1.0]heptadecane-8,12-dione, 6,10-dihydroxy-1,5,7,9,9-pentamethyl-14-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4Z,7S,11S,14R,15R,16R)- (9CI) (CA INDEX NAME)

(1R,5S,6S,7R,10S,14S,16S)- (9CI) (CA INDEX NAME)

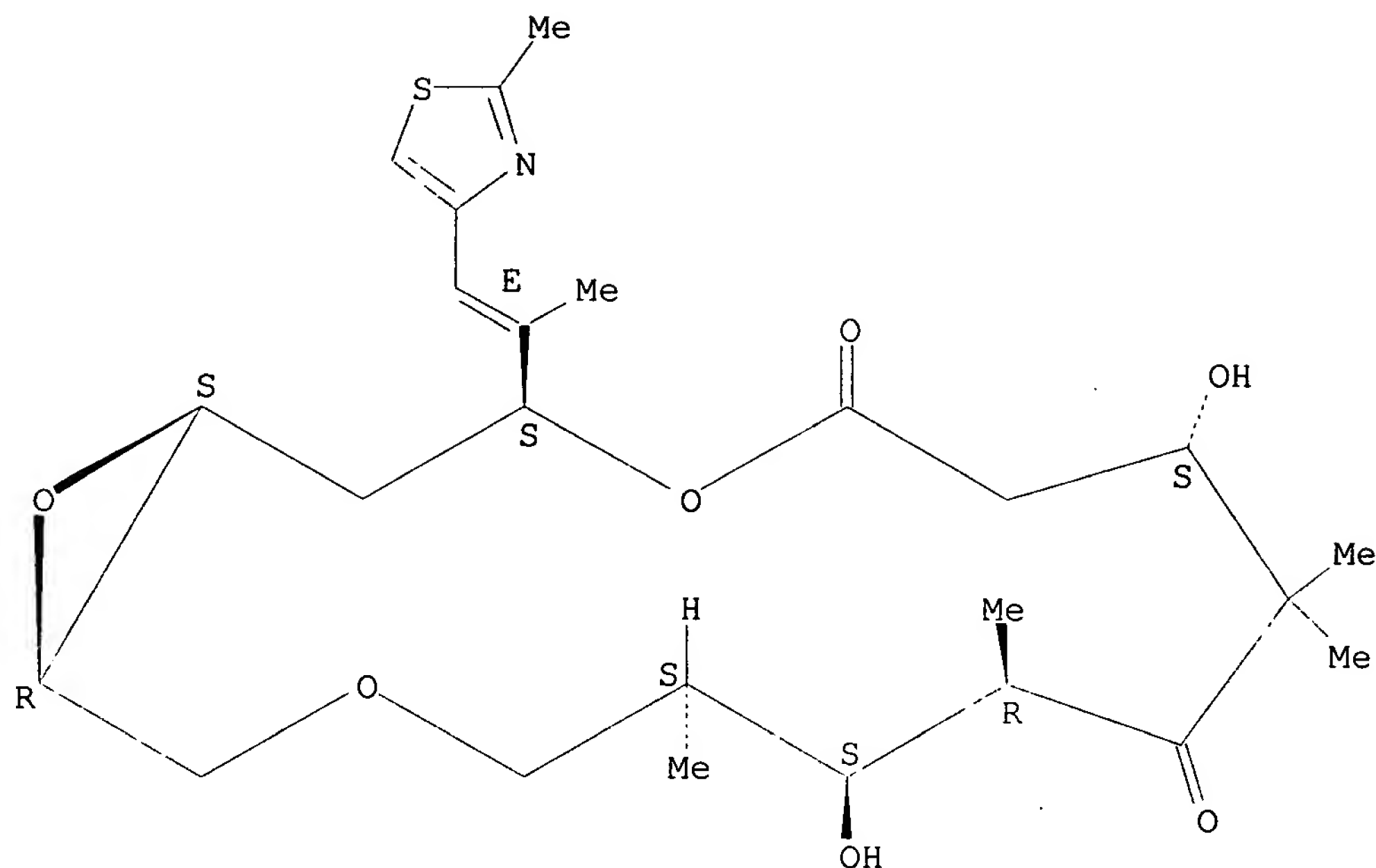
Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-74-9 HCAPLUS
CN 3,13,17-Trioxabicyclo[14.1.0]heptadecane-8,12-dione, 6,10-dihydroxy-
5,7,9,9-tetramethyl-14-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1R,5S,6S,7R,10S,14S,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

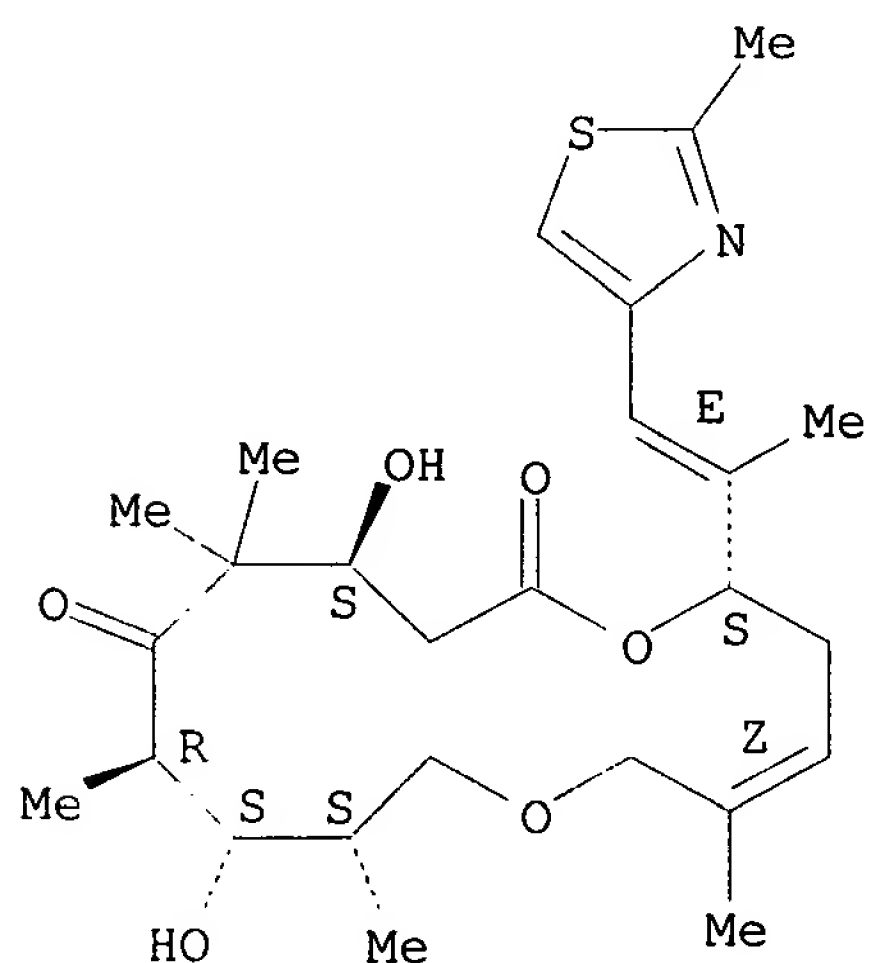
Searched by John Dantzman



RN 219989-75-0 HCAPLUS

CN 1,7-Dioxacyclohexadec-3-ene-8,12-dione, 10,14-dihydroxy-3,11,11,13,15-pentamethyl-6-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (3Z,6S,10S,13R,14S,15S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

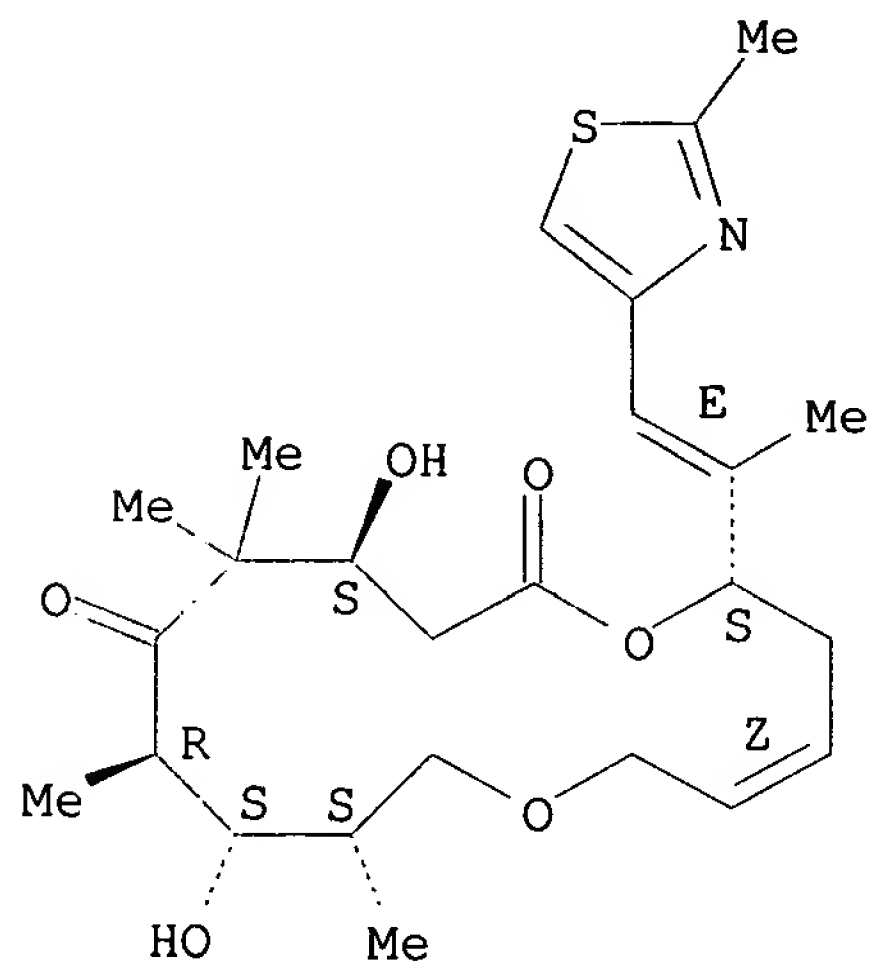


RN 219989-76-1 HCAPLUS

CN 1,7-Dioxacyclohexadec-3-ene-8,12-dione, 10,14-dihydroxy-11,11,13,15-tetramethyl-6-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (3Z,6S,10S,13R,14S,15S)-(9CI) (CA INDEX NAME)

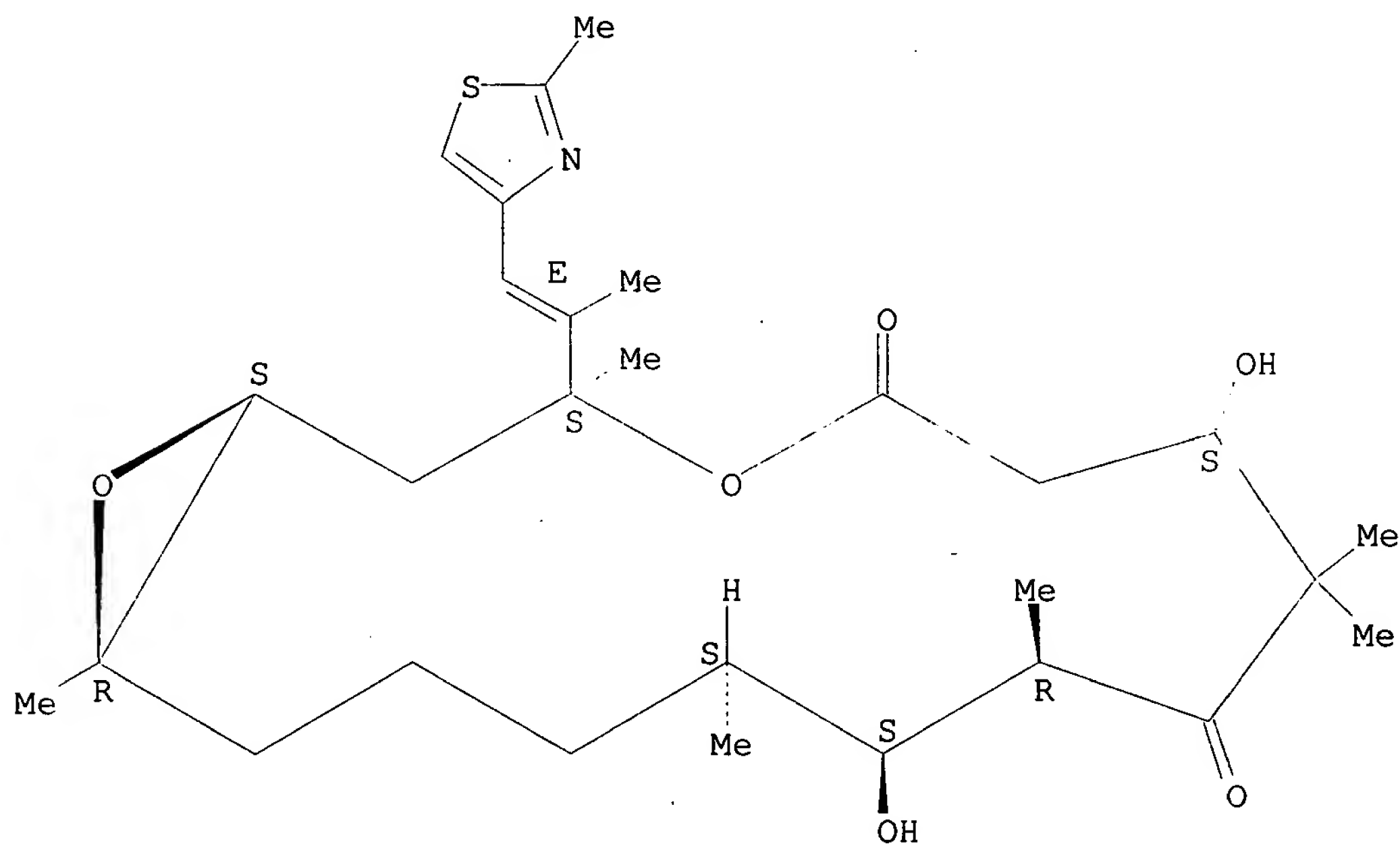
Searched by John Dantzman

Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-77-2 HCAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-
3,8,8,10,12,16-hexamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

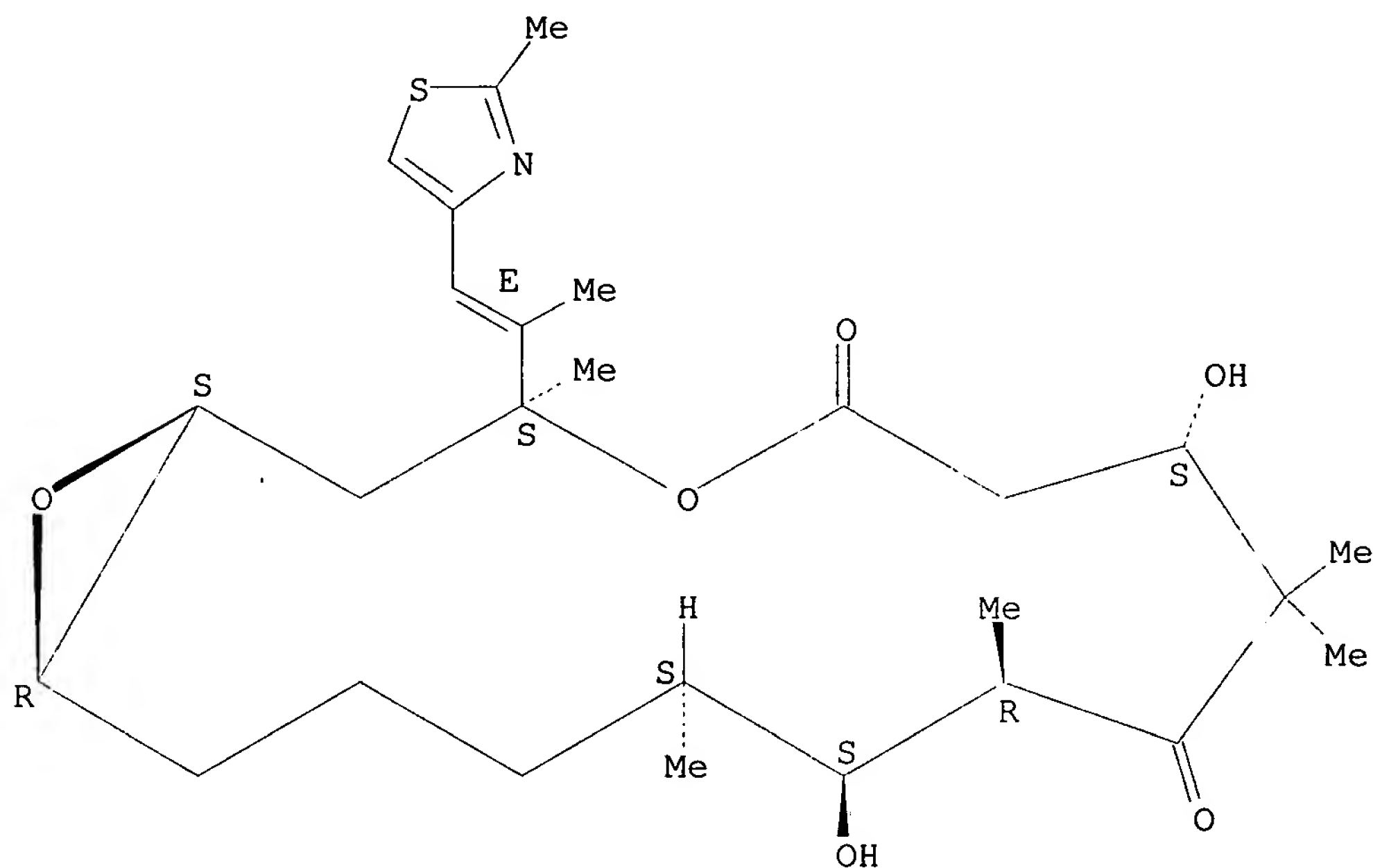


RN 219989-79-4 HCAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione,
7,11-dihydroxy-3,8,8,10,12-

Searched by John Dantzman

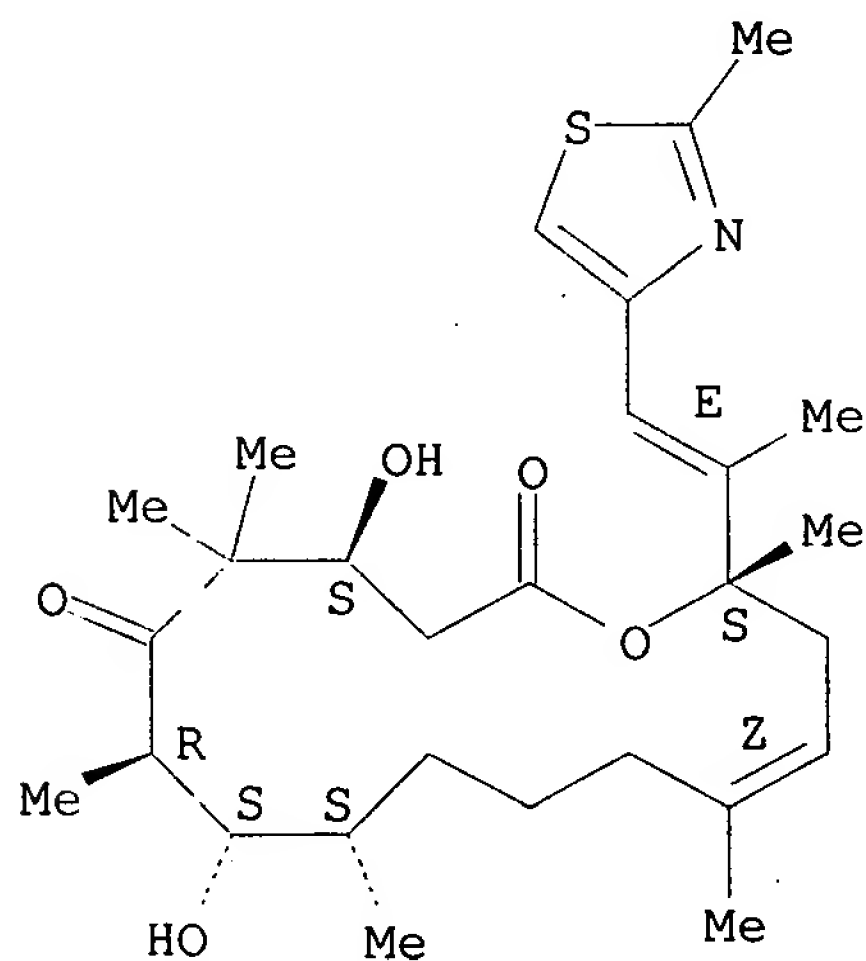
pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-80-7 HCAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9,13,16-hexamethyl-
16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(4S,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

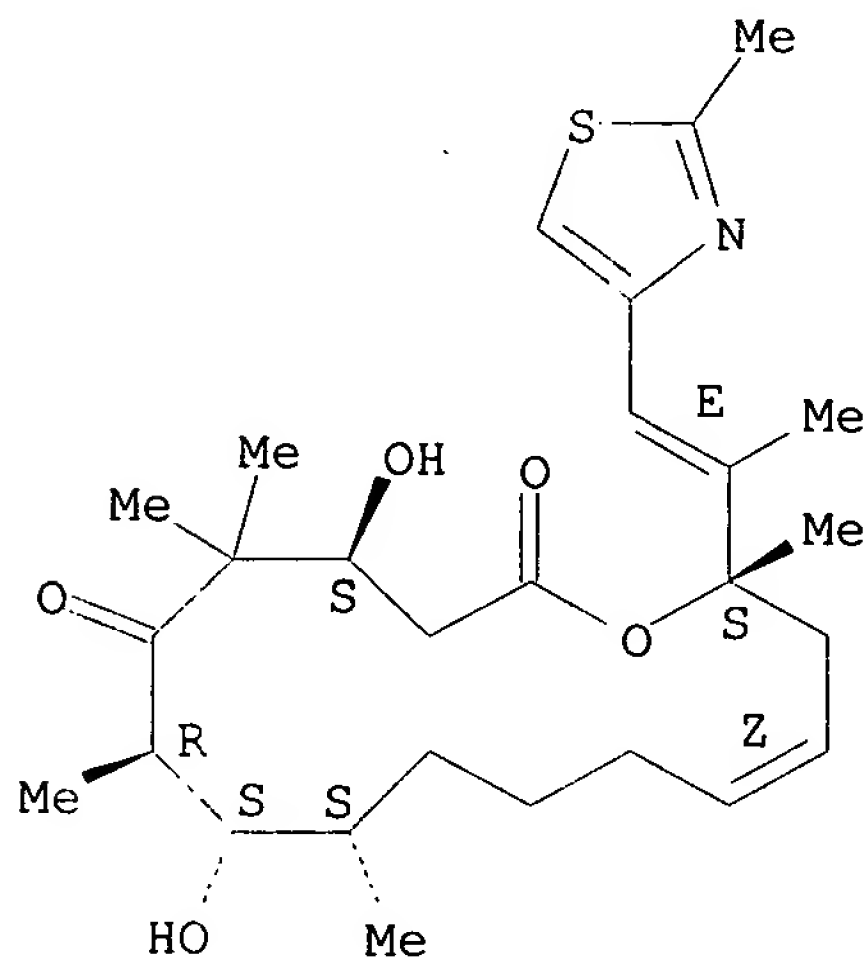
Absolute stereochemistry.
Double bond geometry as shown.



Searched by John Dantzman

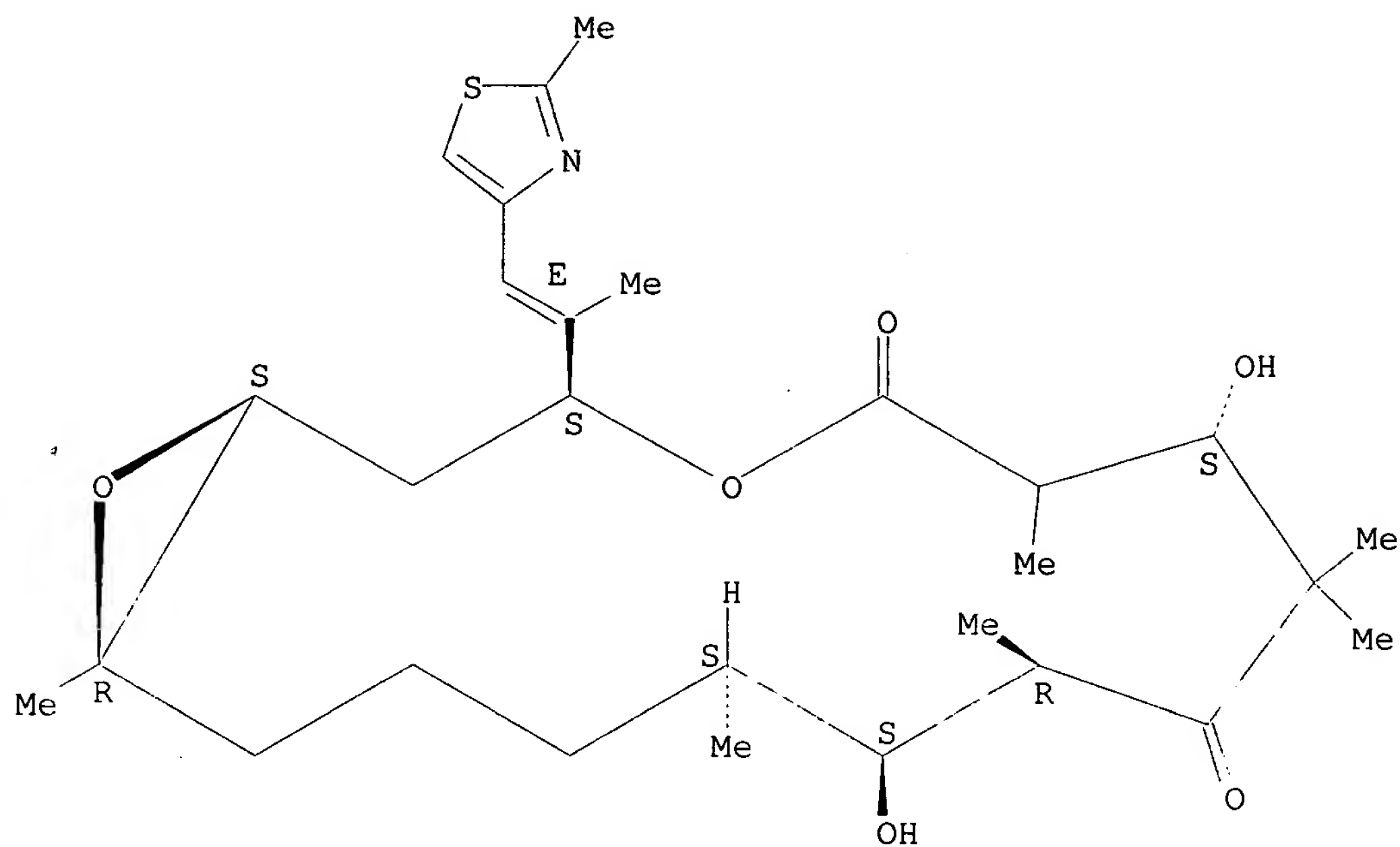
RN 219989-81-8 HCAPLUS
CN Oxacyclohexadec-13-ene-2,6-dione,
4,8-dihydroxy-5,5,7,9,16-pentamethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



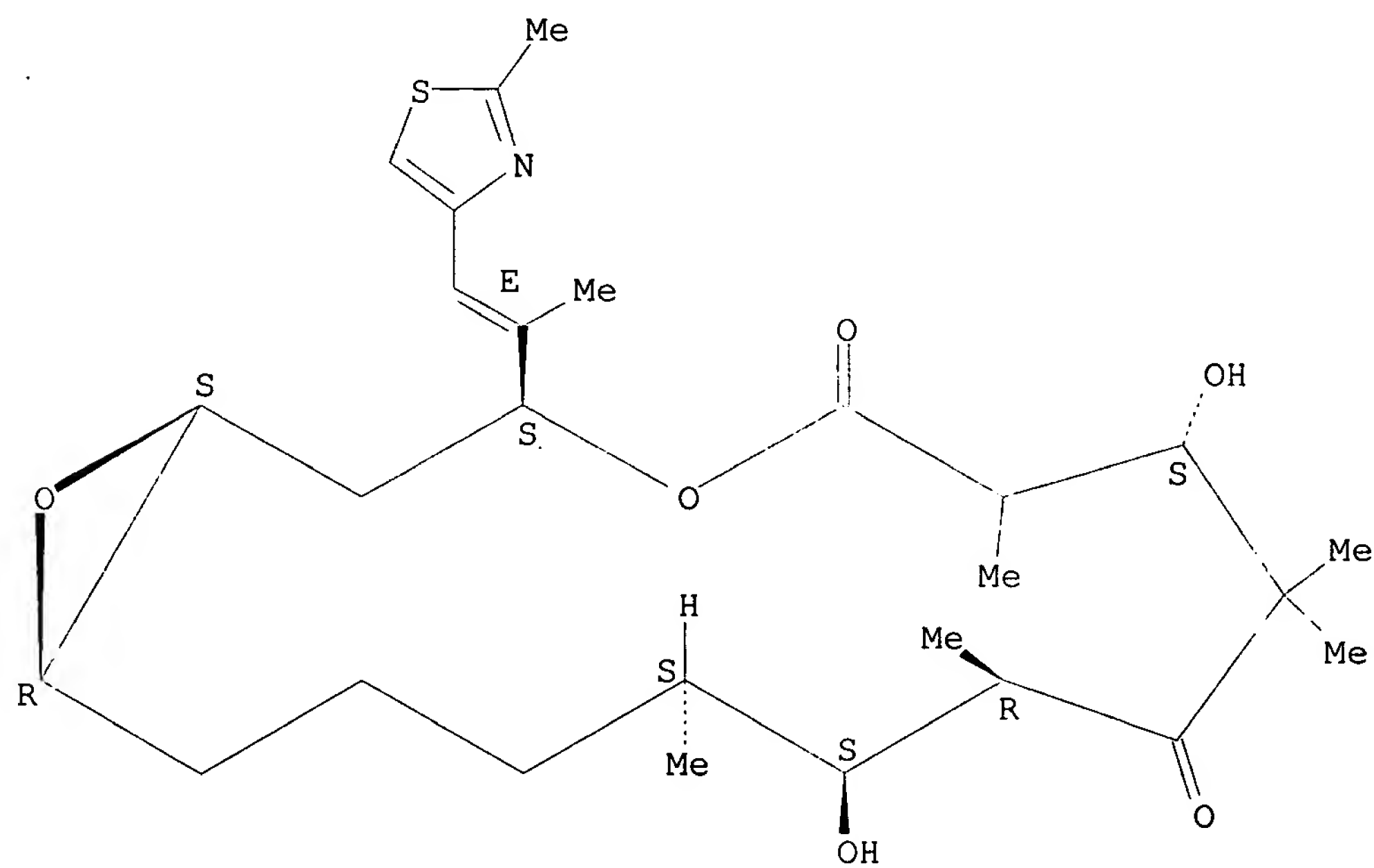
RN 219989-82-9 HCAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-
6,8,8,10,12,16-hexamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-83-0 HCAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione,
7,11-dihydroxy-6,8,8,10,12-
pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



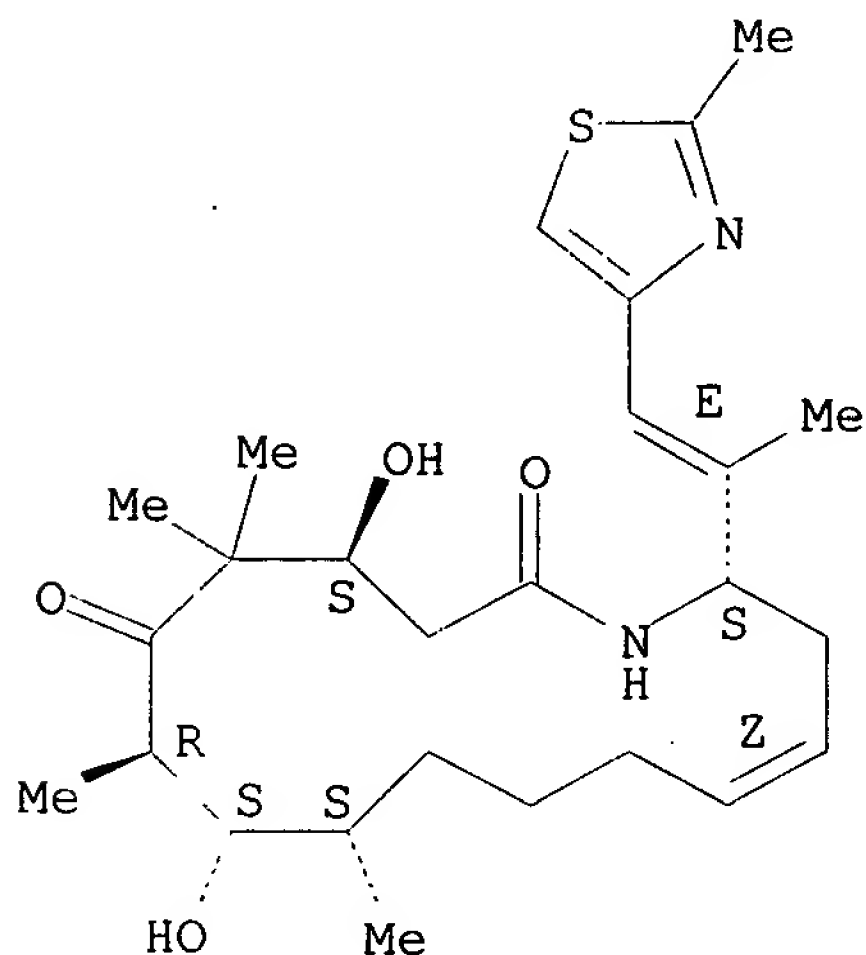
Searched by John Dantzman

RN 219989-88-5 HCAPLUS

CN Azacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-5,5,7,9-tetramethyl-16-
[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

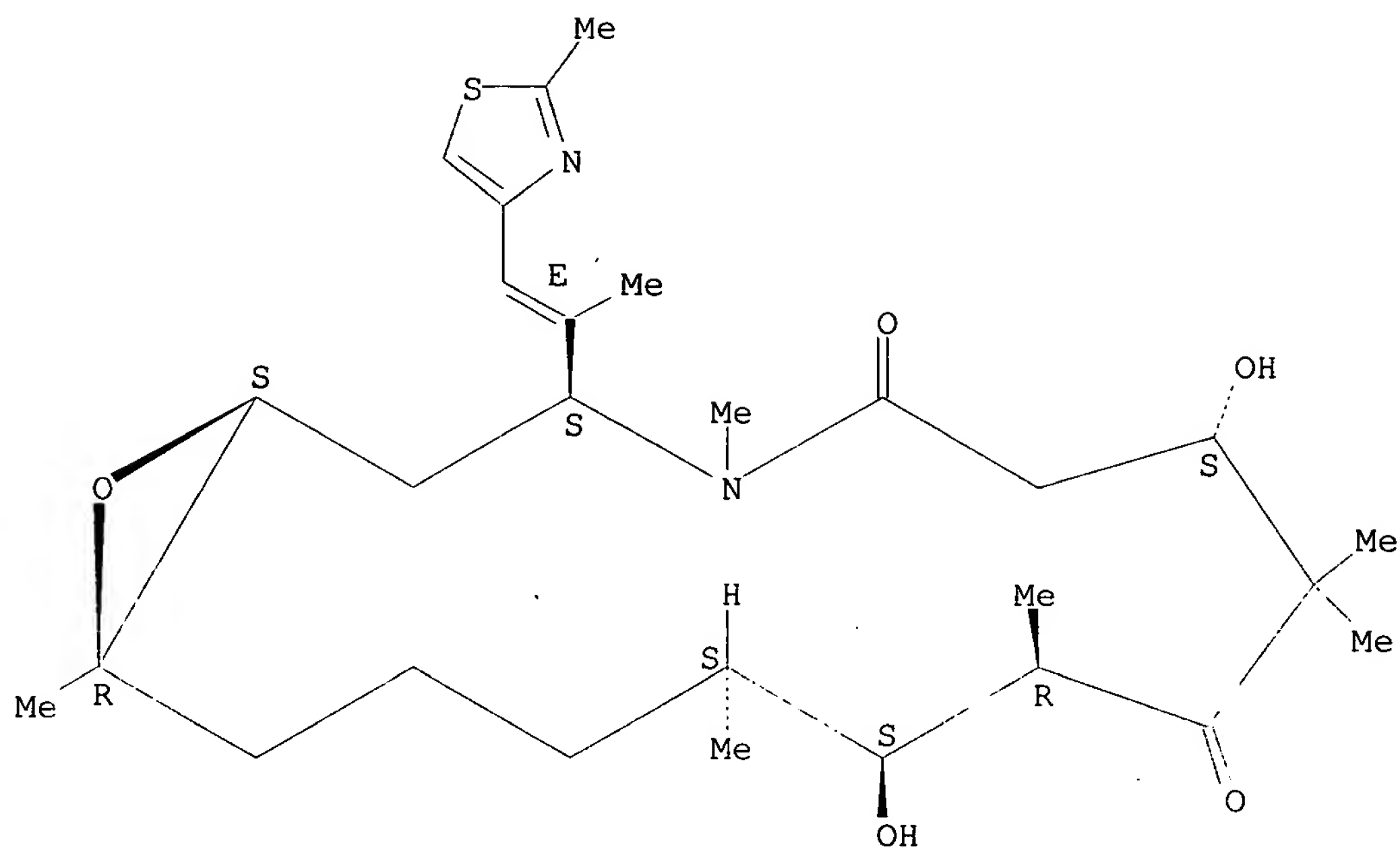


RN 219989-89-6 HCAPLUS

CN 17-Oxa-4-azabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-
4,8,8,10,12,16-hexamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

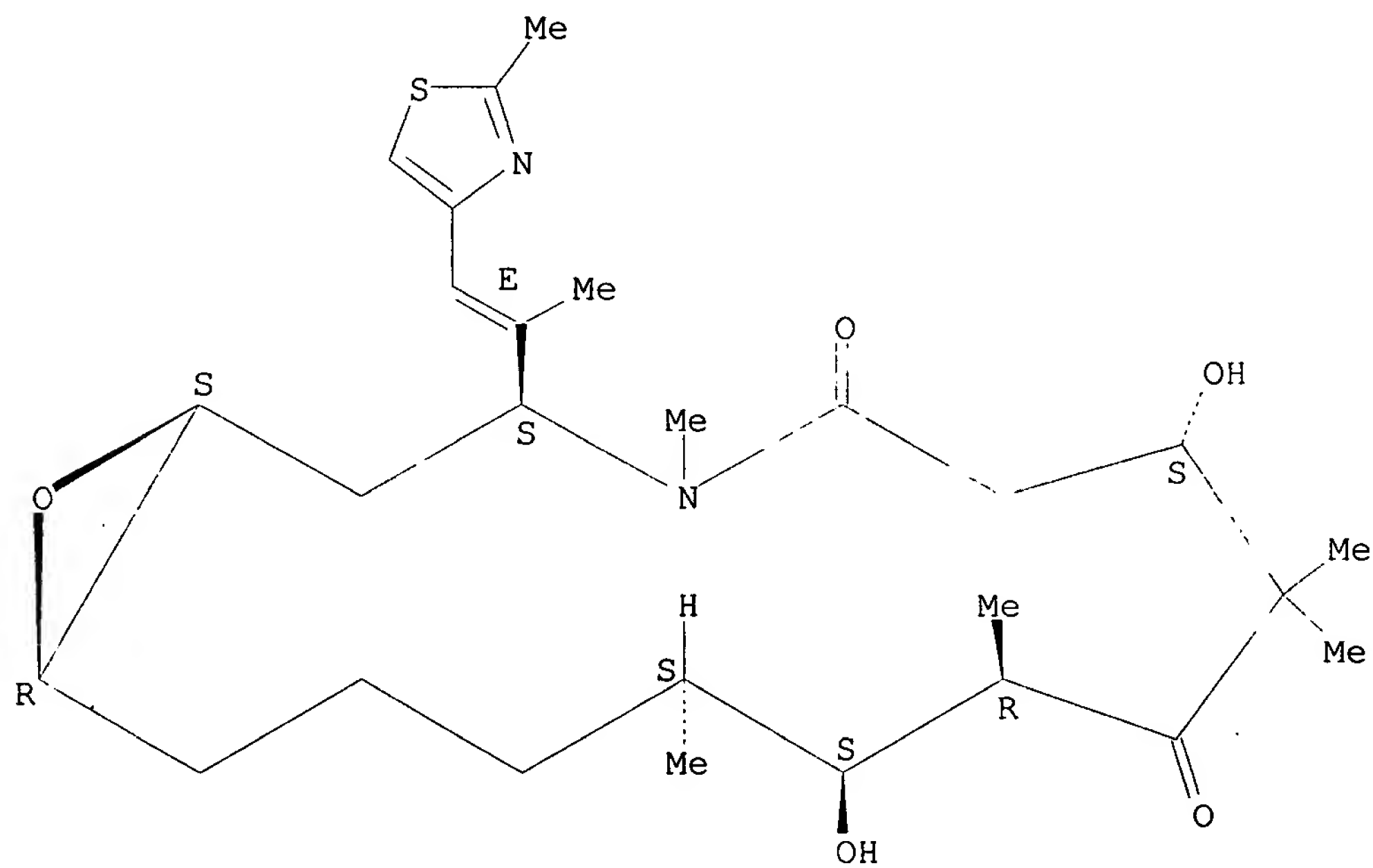


RN 219989-90-9 HCAPLUS

CN 17-Oxa-4-azabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

4,8,8,10,12-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-
, (1S,3S,7S,10R,11S,12S,16R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



Searched by John Dantzman

RN 219989-91-0 HCAPLUS

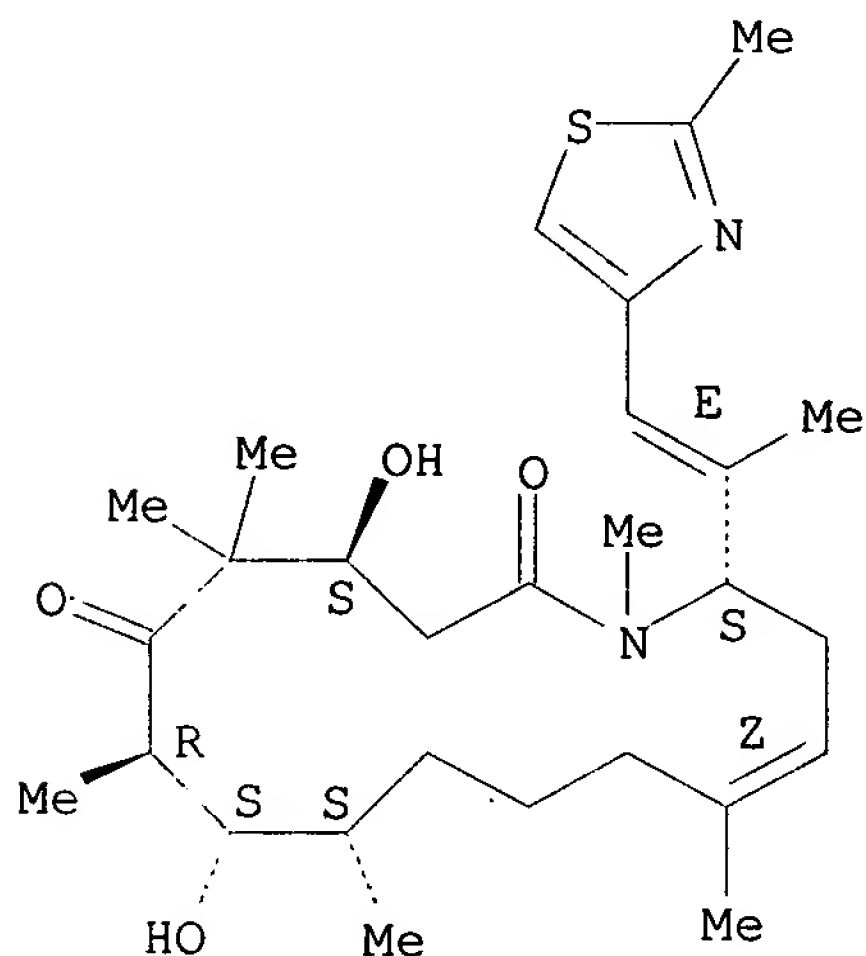
CN Azacyclohexadec-13-ene-2,6-dione,

4,8-dihydroxy-1,5,5,7,9,13-hexamethyl-16-

[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



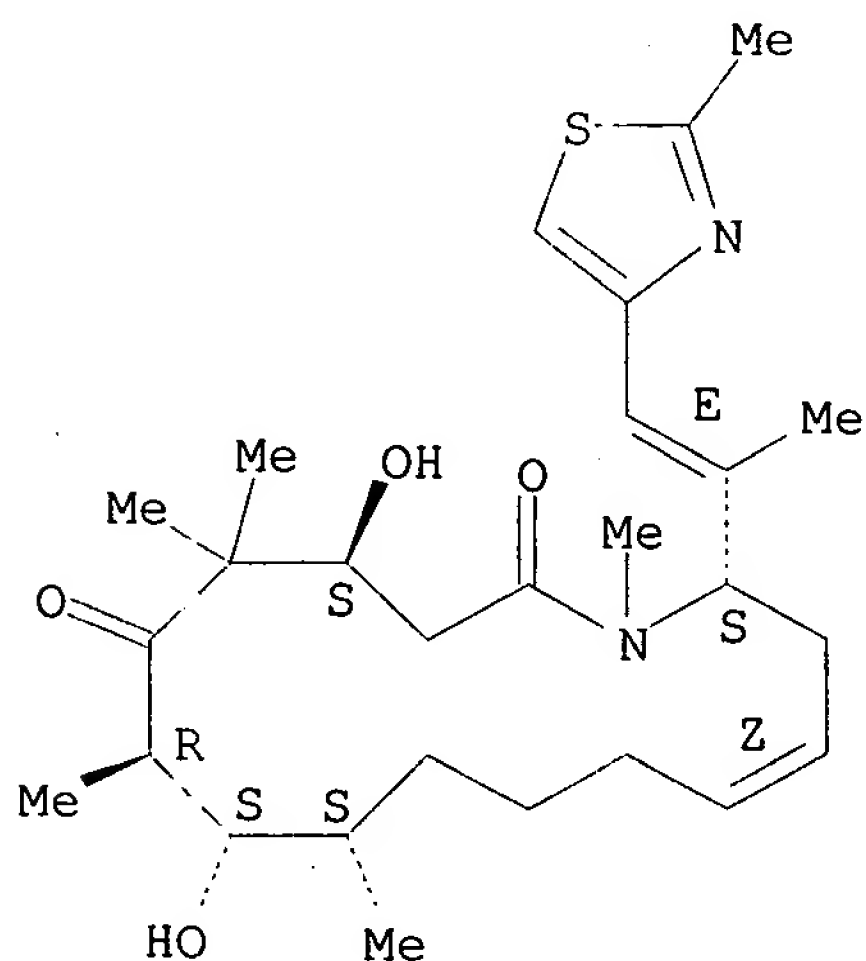
RN 219989-92-1 HCAPLUS

CN Azacyclohexadec-13-ene-2,6-dione, 4,8-dihydroxy-1,5,5,7,9-pentamethyl-16-

[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13Z,16S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

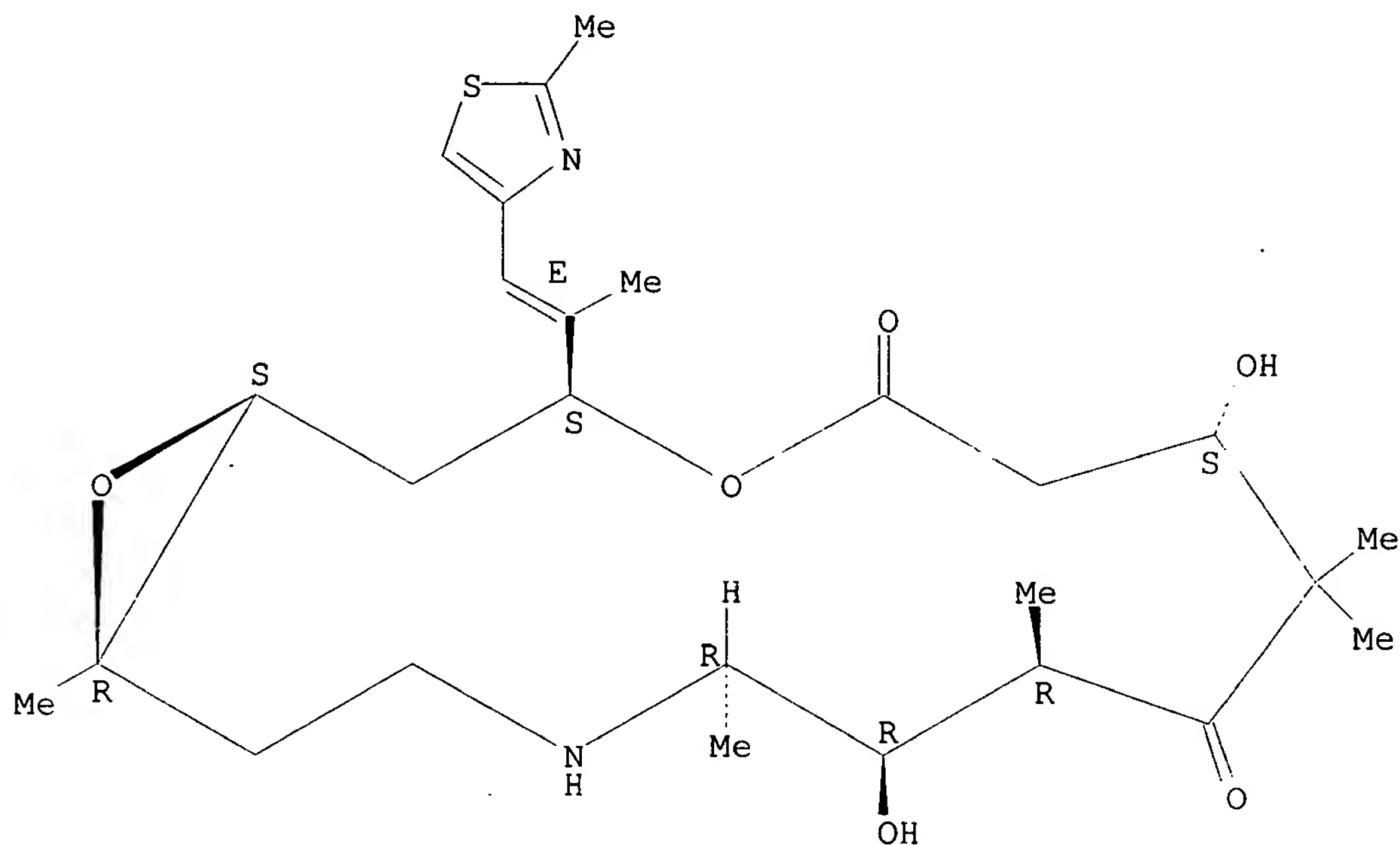


RN 219989-93-2 HCAPLUS

Searched by John Dantzman

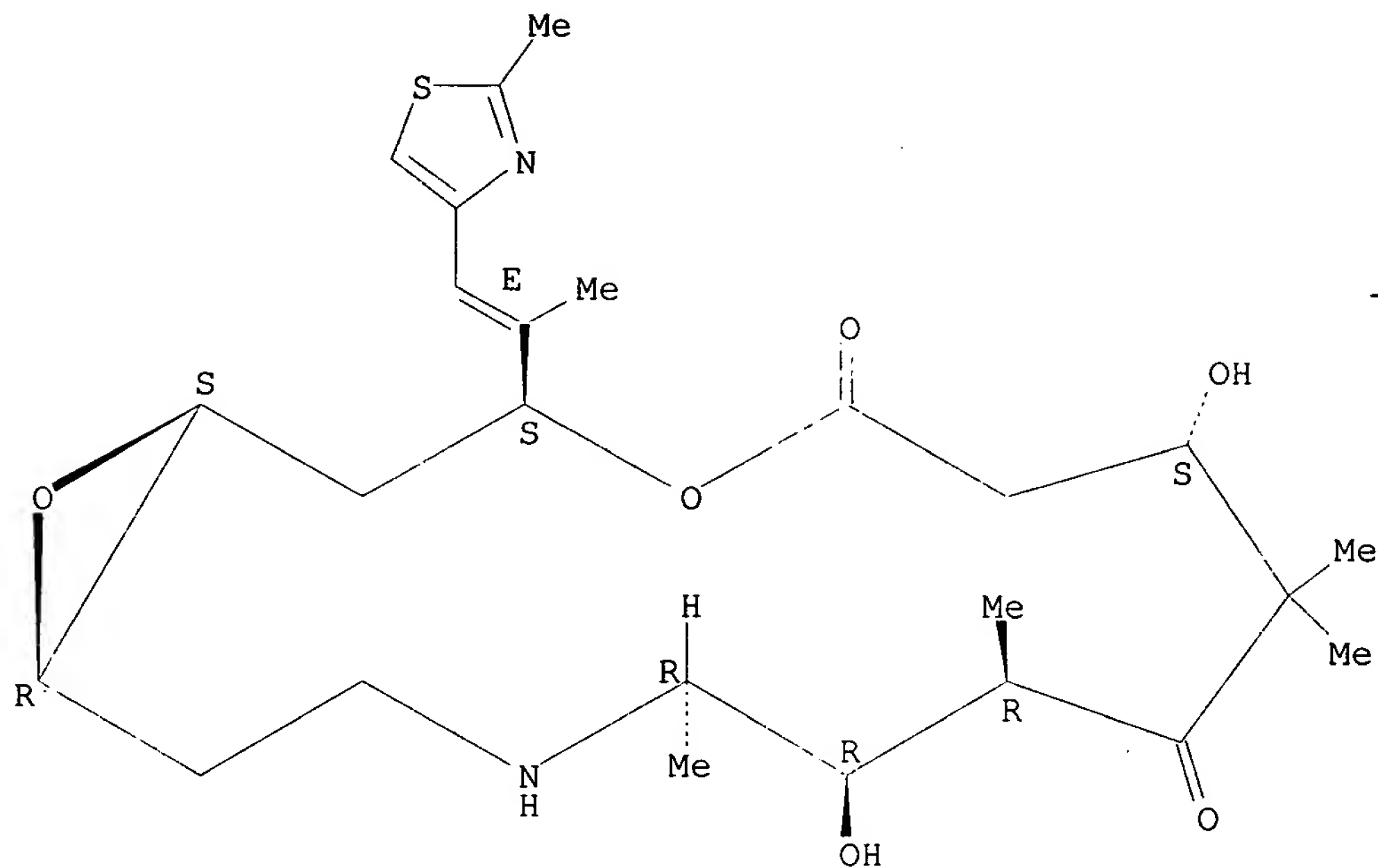
CN 4,17-Dioxa-13-azabicyclo[14.1.0]heptadecane-5,9-dione,
7,11-dihydroxy-8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11R,12R,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-94-3 HCAPLUS
CN 4,17-Dioxa-13-azabicyclo[14.1.0]heptadecane-5,9-dione,
7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1S,3S,7S,10R,11R,12R,16R)- (9CI) (CA INDEX NAME)

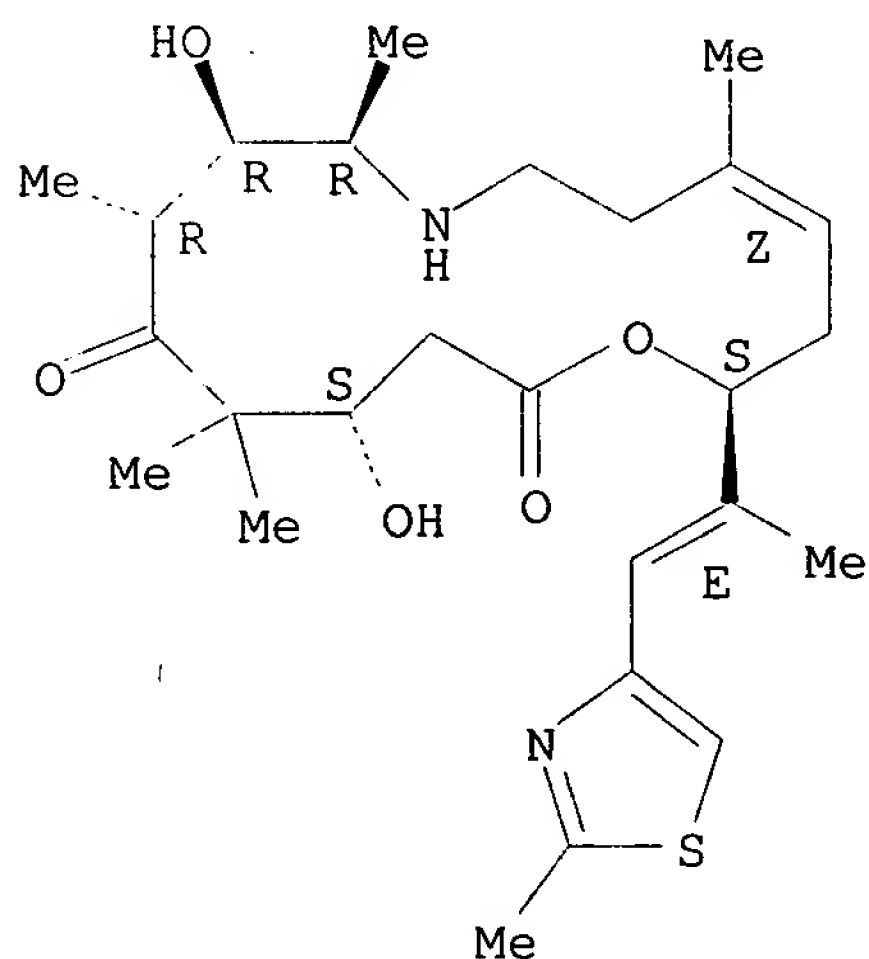
Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-95-4 HCAPLUS

CN 1-Oxa-8-azacyclohexadec-4-ene-12,16-dione, 10,14-dihydroxy-5,9,11,13,13-pentamethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (2S,4Z,9R,10R,11R,14S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

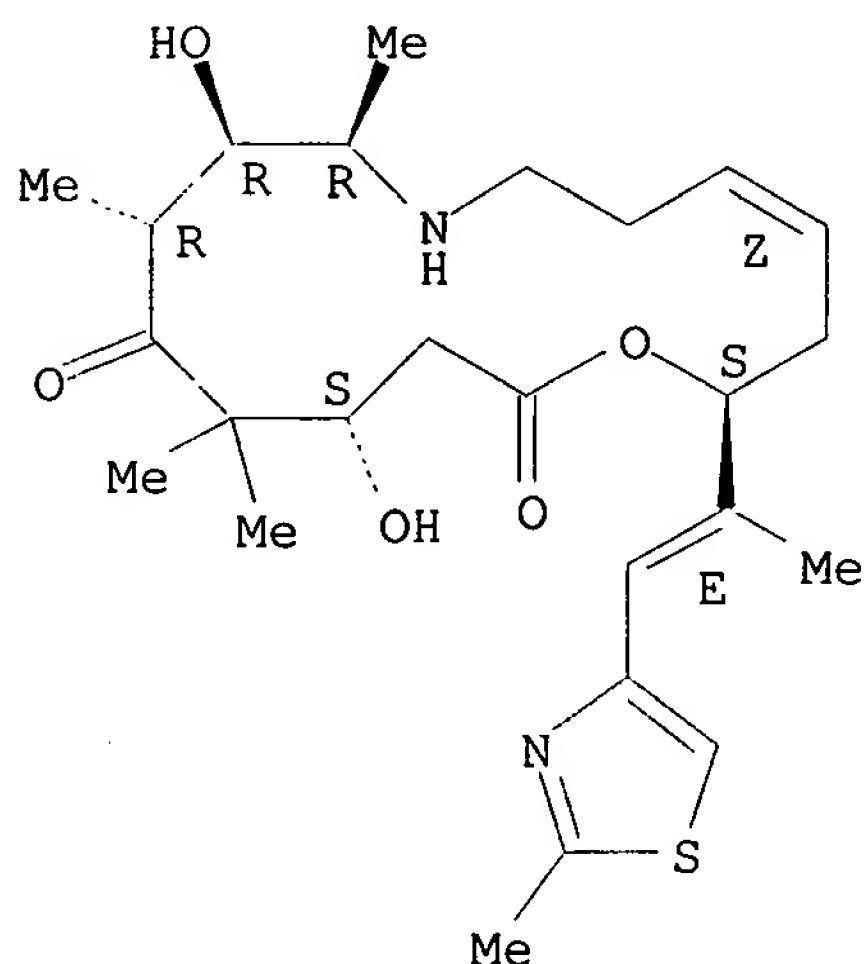


RN 219989-96-5 HCAPLUS

CN 1-Oxa-8-azacyclohexadec-4-ene-12,16-dione, 10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (2S,4Z,9R,10R,11R,14S)-(9CI) (CA INDEX NAME)

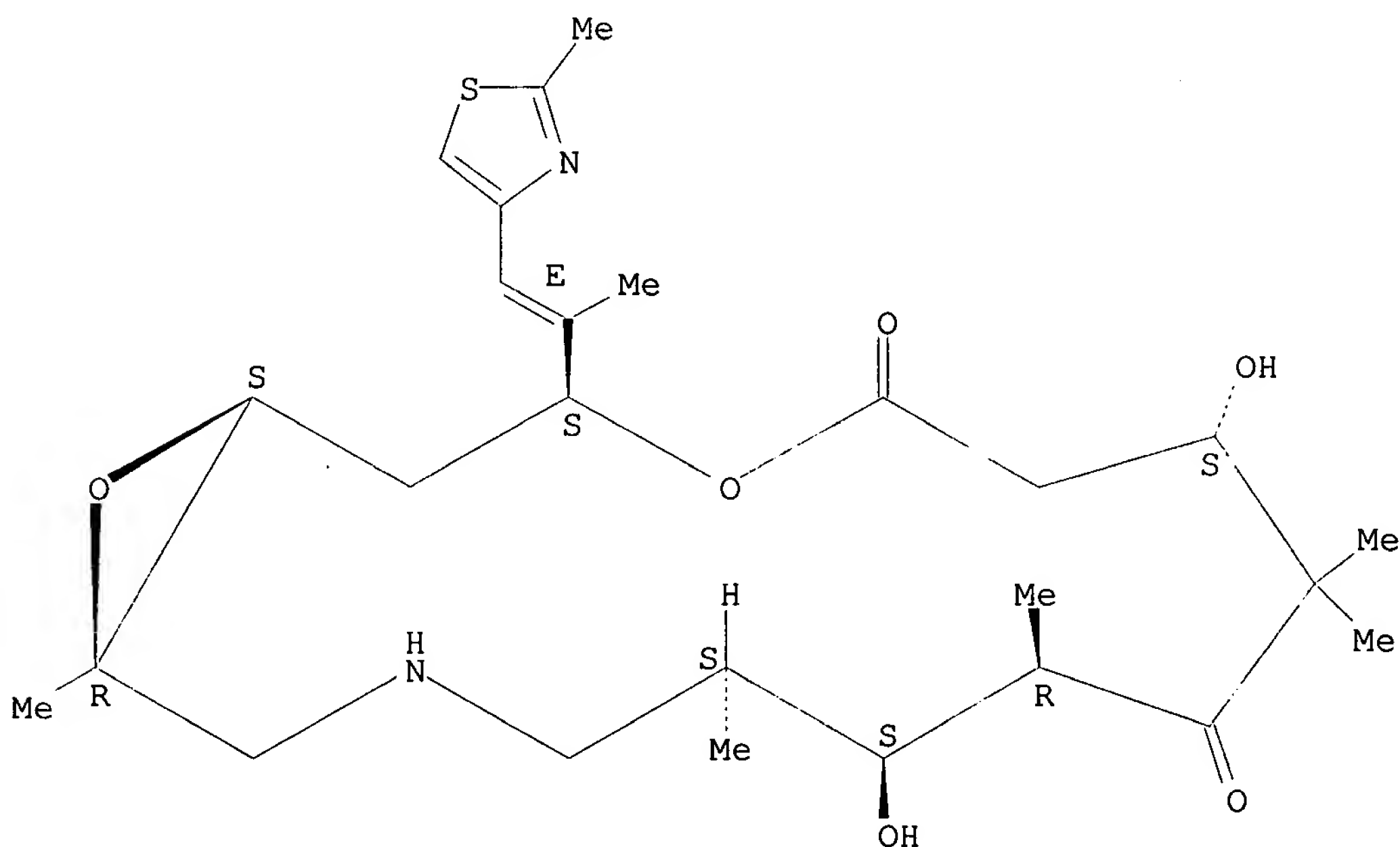
Searched by John Dantzman

Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-97-6 HCAPLUS
CN 13,17-Dioxo-3-azabicyclo[14.1.0]heptadecane-8,12-dione,
6,10-dihydroxy-1,5,7,9,9-pentamethyl-14-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1R,5S,6S,7R,10S,14S,16S)- (9CI) (CA INDEX NAME)

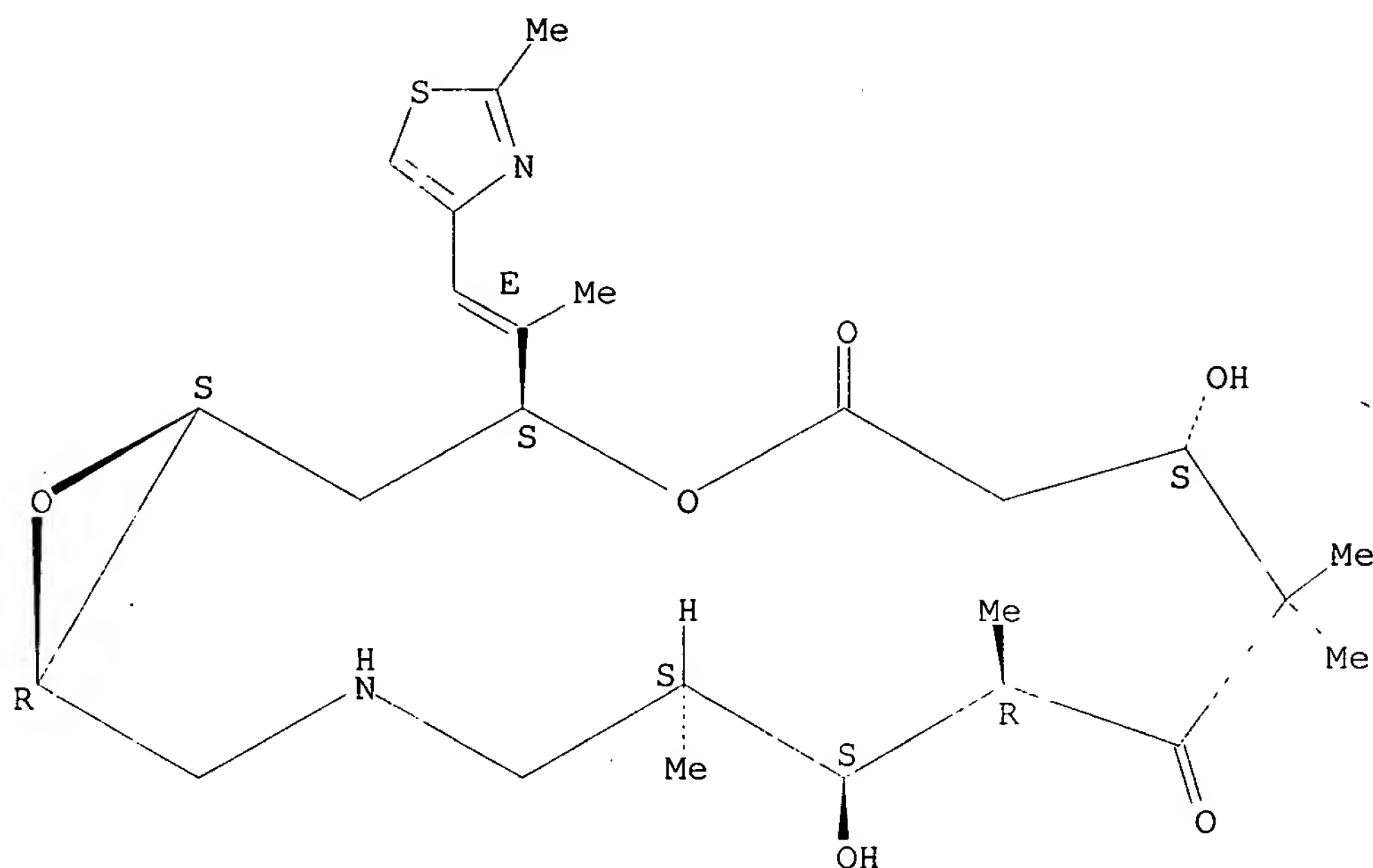
Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-98-7 HCAPLUS
CN 13,17-Dioxo-3-azabicyclo[14.1.0]heptadecane-8,12-dione,
6,10-dihydroxy-5,7,9,9-tetramethyl-14-[(1E)-1-methyl-2-(2-methyl-4-
thiazolyl)ethenyl]-, (1R,5S,6S,7R,10S,14S,16S)- (9CI) (CA INDEX NAME)
Searched by John Dantzman

thiazolyl)ethenyl]-, (1R,5S,6S,7R,10S,14S,16S)- (9CI) (CA INDEX NAME)

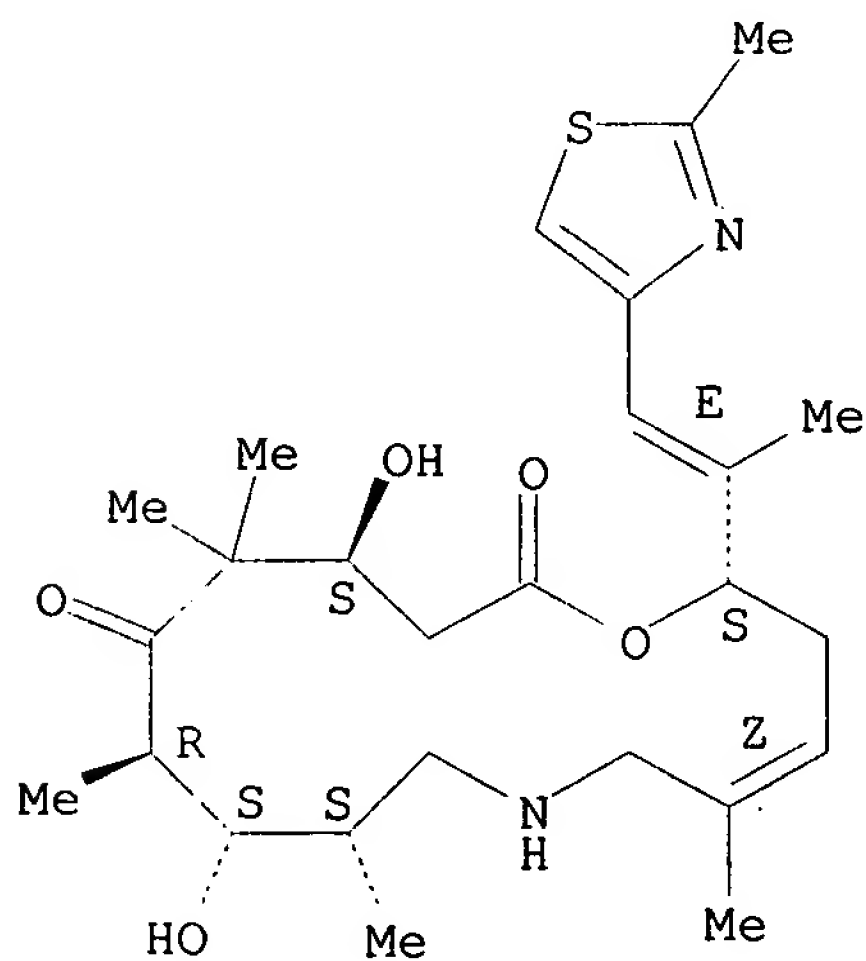
Absolute stereochemistry.
Double bond geometry as shown.



RN 219989-99-8 HCAPLUS

CN 1-Oxa-7-azacyclohexadec-4-ene-12,16-dione, 10,14-dihydroxy-5,9,11,13,13-pentamethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (2S,4Z,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

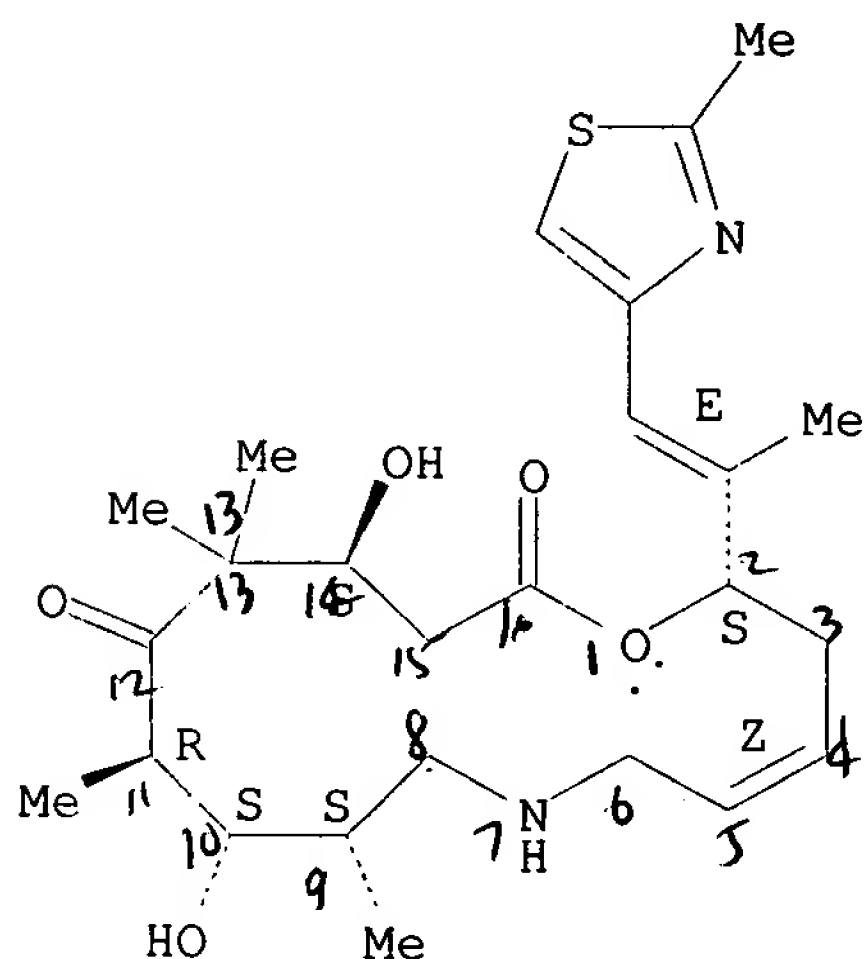


RN 219990-00-8 HCAPLUS

Searched by John Dantzman

CN 1-Oxa-7-azacyclohexadec-4-ene-12,16-dione, 10,14-dihydroxy-9,11,13,13-tetramethyl-2-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (2S,4Z,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

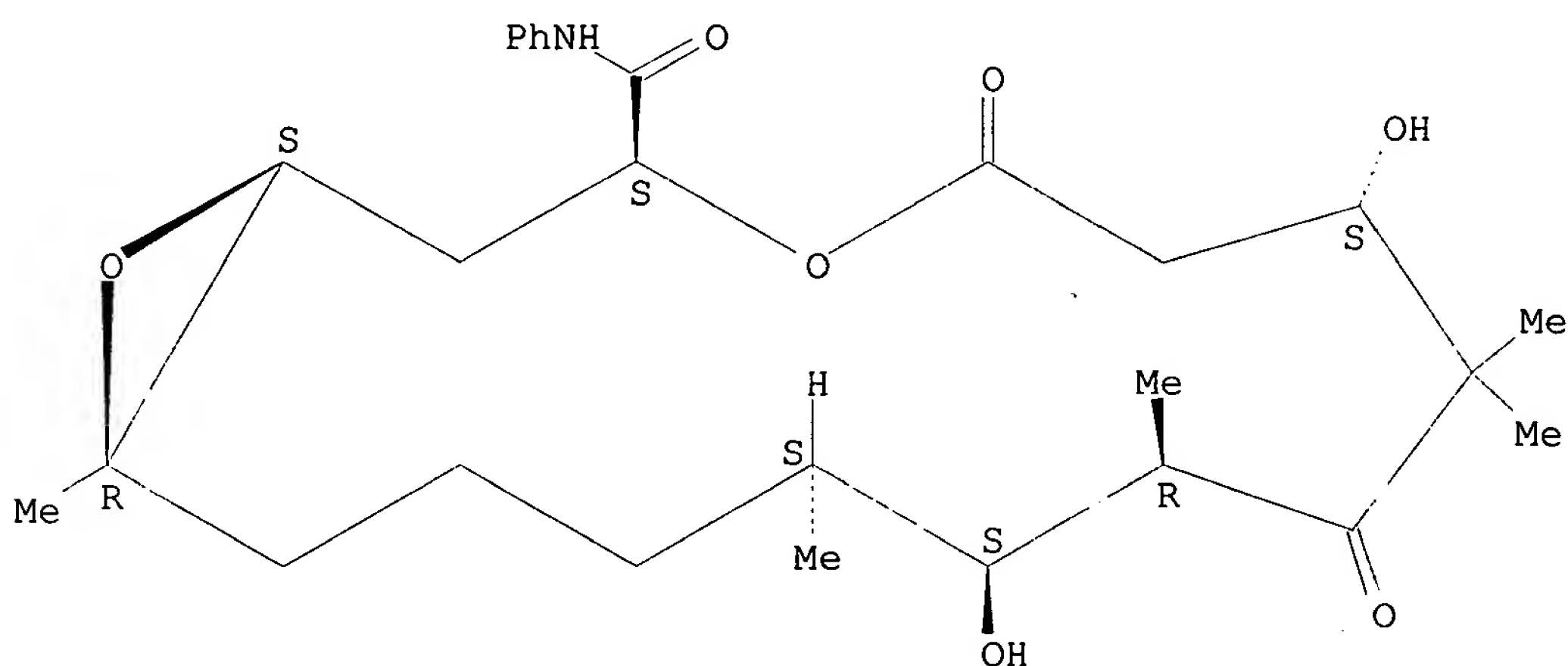
Absolute stereochemistry.
Double bond geometry as shown.



RN 219990-01-9 HCAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-3-carboxamide, 7,11-dihydroxy-8,8,10,12,16-pentamethyl-5,9-dioxo-N-phenyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

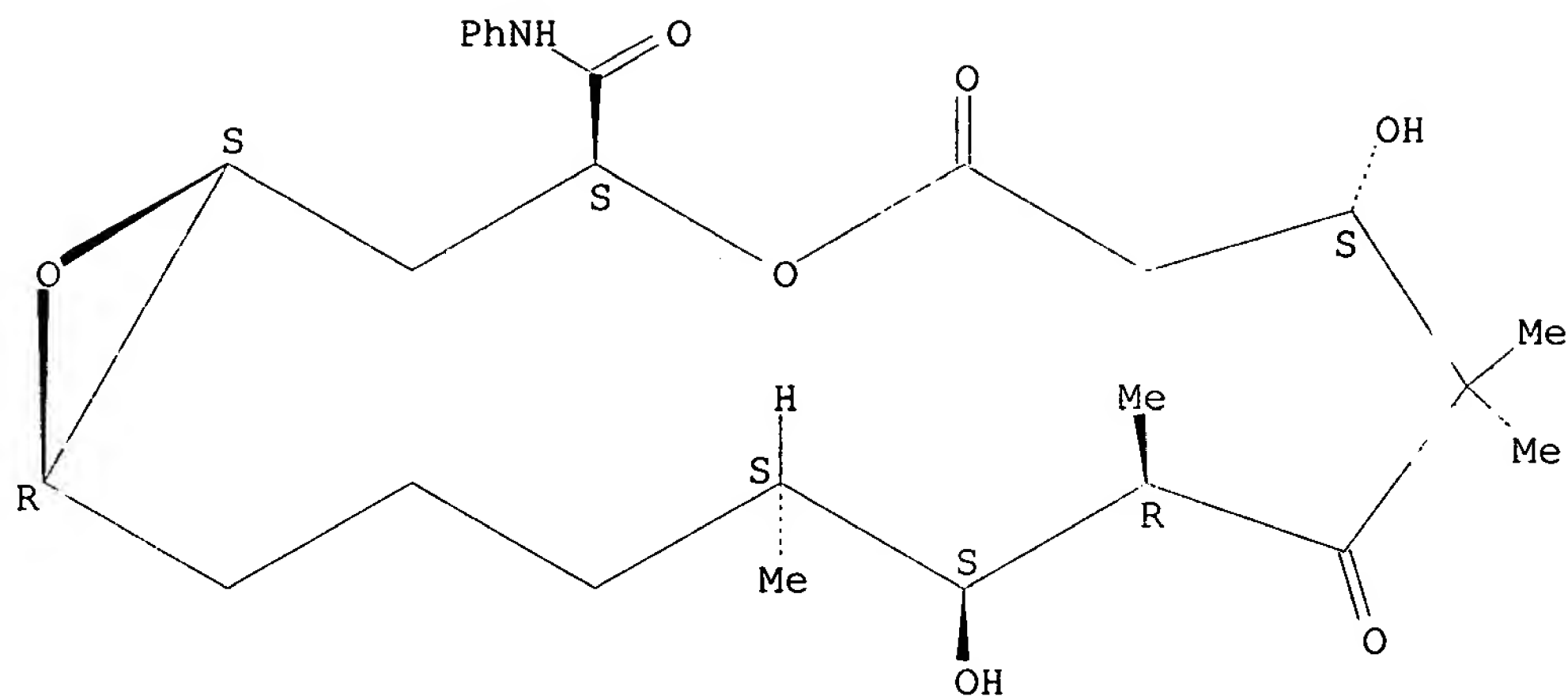


RN 219990-02-0 HCAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-3-carboxamide, 7,11-dihydroxy-8,8,10,12-tetramethyl-5,9-dioxo-N-phenyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

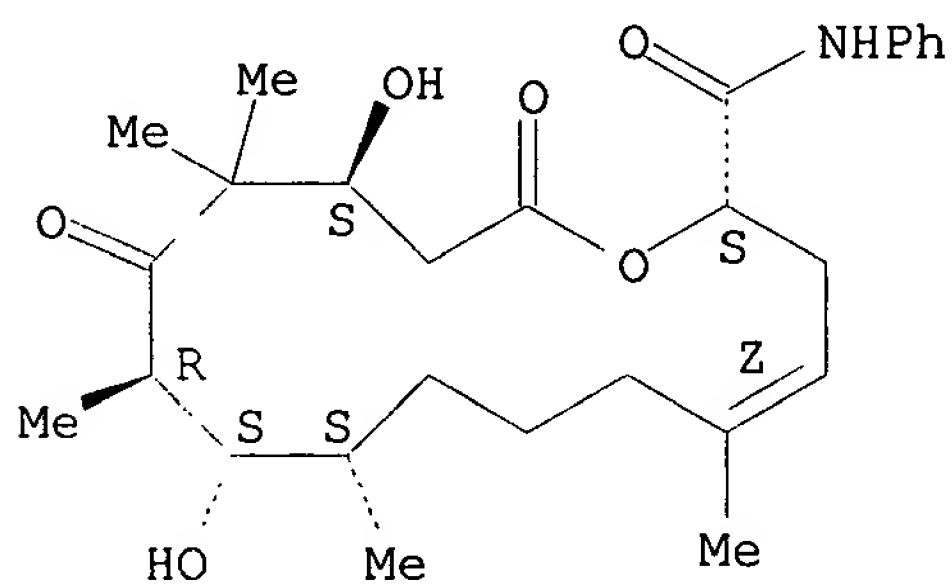
Searched by John Dantzman



RN 219990-03-1 HCAPLUS

CN Oxacyclohexadec-4-ene-2-carboxamide, 10,14-dihydroxy-5,9,11,13,13-pentamethyl-12,16-dioxo-N-phenyl-, (2S,4Z,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

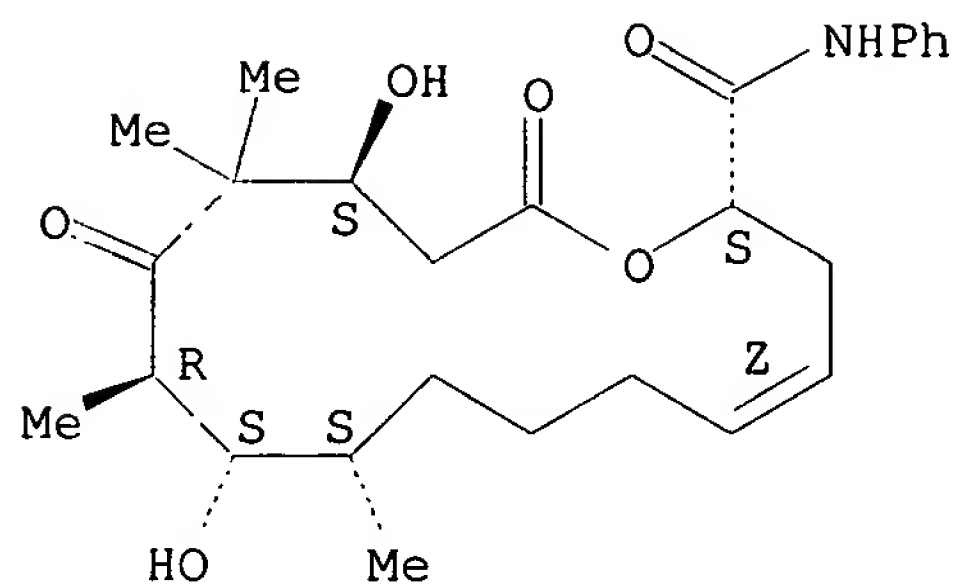
Absolute stereochemistry.
Double bond geometry as shown.



RN 219990-04-2 HCAPLUS

CN Oxacyclohexadec-4-ene-2-carboxamide, 10,14-dihydroxy-9,11,13,13-tetramethyl-12,16-dioxo-N-phenyl-, (2S,4Z,9S,10S,11R,14S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

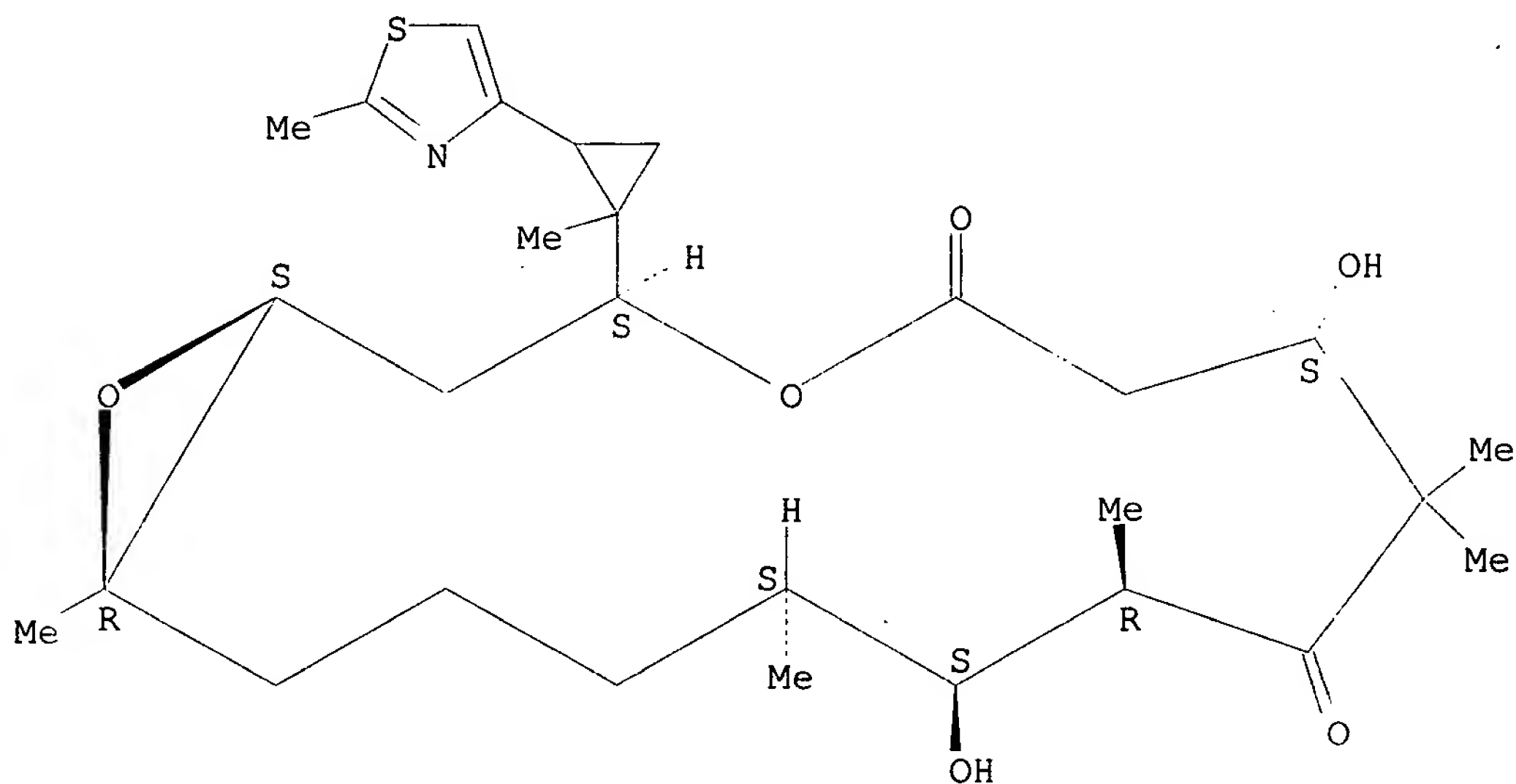


RN 220009-36-9 HCAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-

8,8,10,12,16-pentamethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)cyclopropyl]-
, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

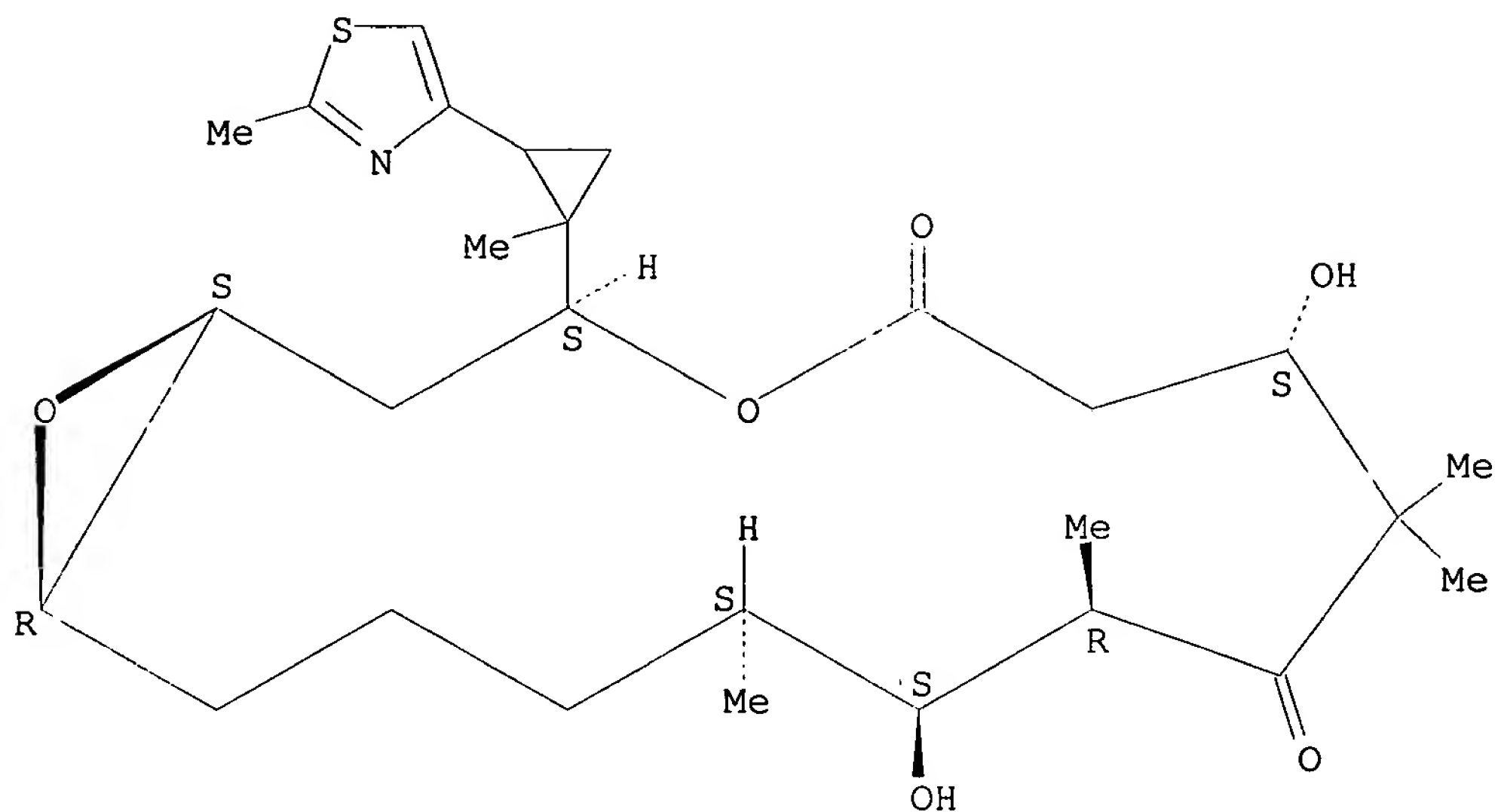
Absolute stereochemistry.



RN 220009-41-6 HCAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-
tetramethyl-3-[1-methyl-2-(2-methyl-4-thiazolyl)cyclopropyl]-,
(1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



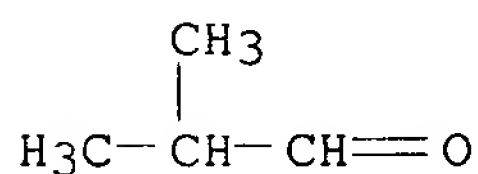
IT 78-84-2, Isobutyraldehyde 79-03-8, Propionyl chloride
 110-91-8, Morpholine, reactions 1119-51-3,
 5-Bromo-1-pentene 1730-25-2, Allylmagnesium bromide
 16338-48-0, S-2-Amino-4-pentenoic acid 152044-53-6,
Epothilone A 184246-51-3 192060-67-6

RL: RCT (Reactant)

(syntheses of **epothilone** analogs and intermediates for use in
 treatment of hyperproliferative cellular disease)

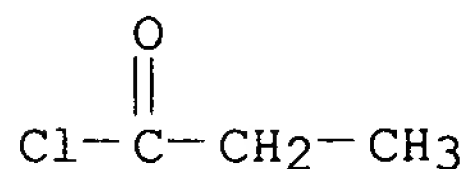
RN 78-84-2 HCAPLUS

CN Propanal, 2-methyl- (9CI) (CA INDEX NAME)



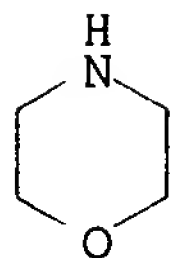
RN 79-03-8 HCAPLUS

CN Propanoyl chloride (9CI) (CA INDEX NAME)

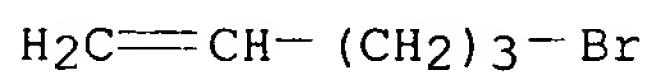


RN 110-91-8 HCAPLUS

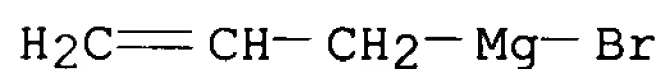
CN Morpholine (8CI, 9CI) (CA INDEX NAME)



RN 1119-51-3 HCAPLUS
CN 1-Pentene, 5-bromo- (6CI, 8CI, 9CI) (CA INDEX NAME)

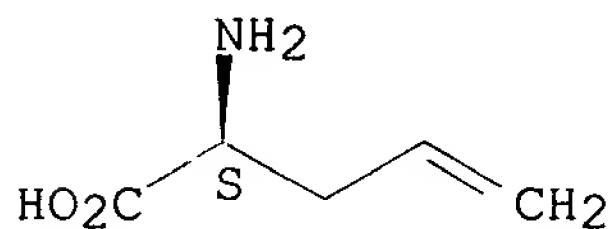


RN 1730-25-2 HCAPLUS
CN Magnesium, bromo-2-propenyl- (9CI) (CA INDEX NAME)



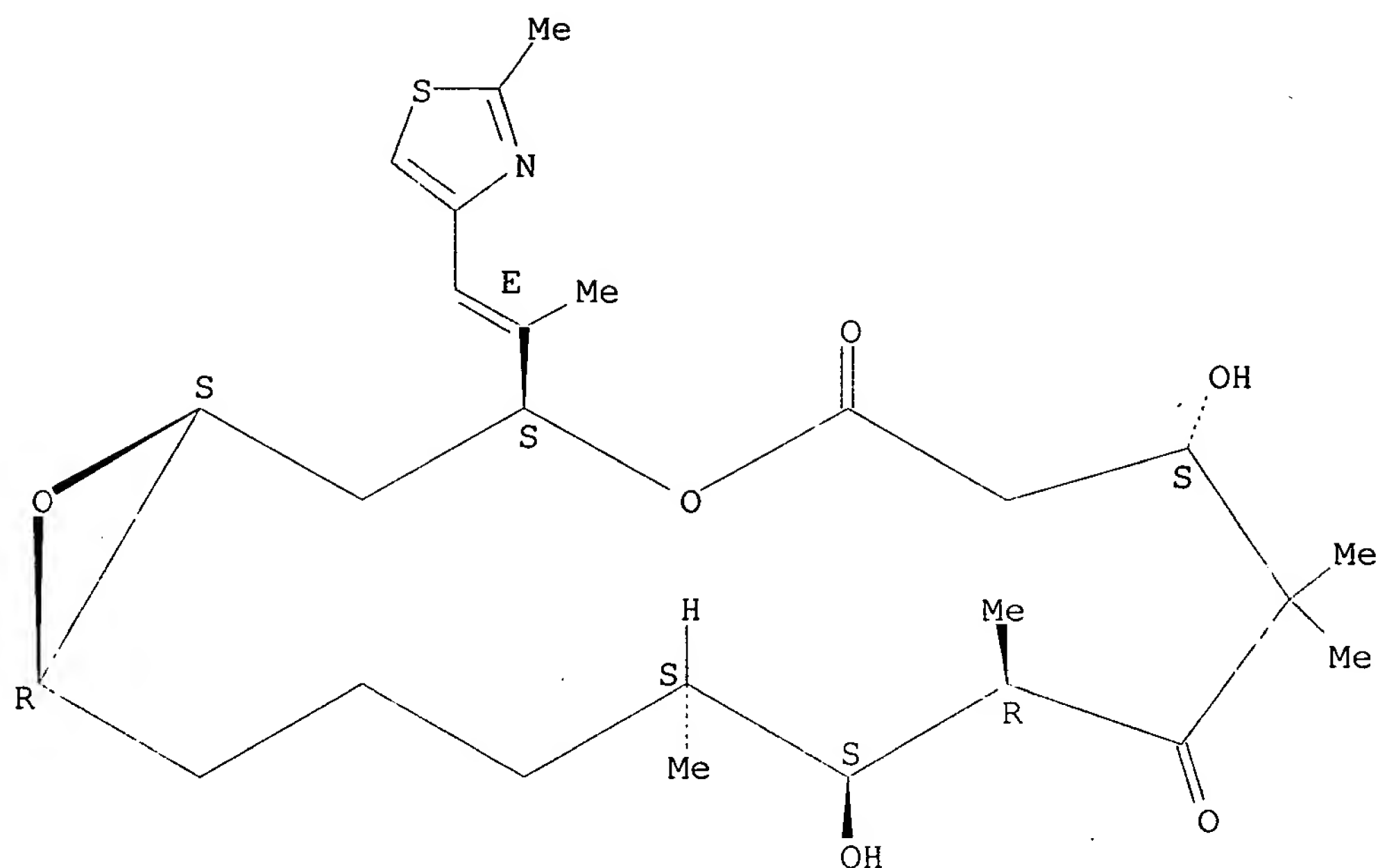
RN 16338-48-0 HCAPLUS
CN 4-Pentenoic acid, 2-amino-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



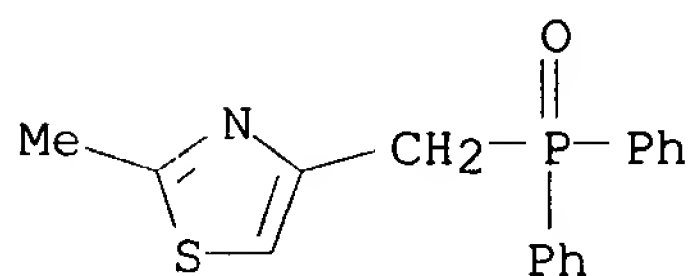
RN 152044-53-6 HCAPLUS
CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12-tetramethyl-3-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (1R,3R,7R,10S,11R,12R,16S)-rel- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 184246-51-3 HCAPLUS

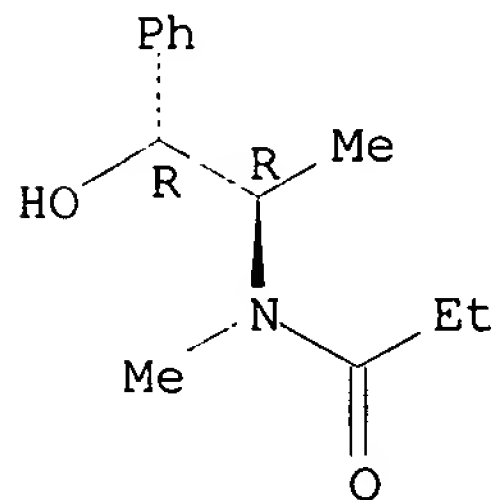
CN Thiazole, 4-[(diphenylphosphinyl)methyl]-2-methyl- (9CI) (CA INDEX NAME)



RN 192060-67-6 HCAPLUS

CN Propanamide, N-[(1R,2R)-2-hydroxy-1-methyl-2-phenylethyl]-N-methyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



IT 2403-55-6P 90600-20-7P 106921-60-2P
184917-63-3P, (S)-2-Methyl-6-heptenal 187283-47-2P
193071-52-2P 208518-52-9P, Epothilone F
208521-14-6P 219990-08-6P 219990-09-7P

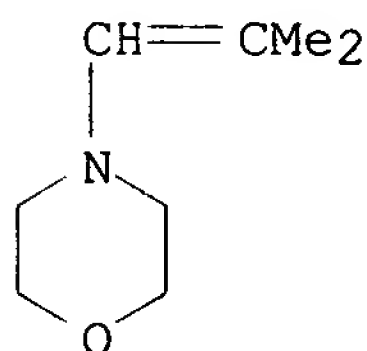
Searched by John Dantzman

219990-10-0P 219990-11-1P 219990-12-2P
 219990-13-3P 219990-14-4P 219990-15-5P
 219990-16-6P 219990-18-8P 219990-21-3P
 219990-23-5P 219990-25-7P 219990-27-9P
 219990-29-1P 219990-32-6P 219990-35-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (syntheses of **epothilone** analogs and intermediates for use in
 treatment of hyperproliferative cellular disease)

RN 2403-55-6 HCAPLUS

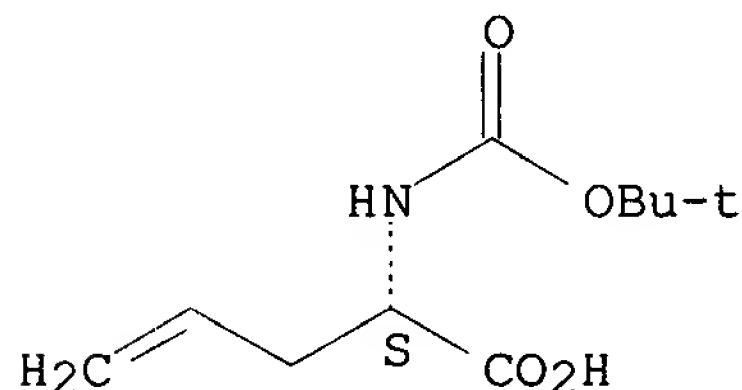
CN Morpholine, 4-(2-methyl-1-propenyl)- (9CI) (CA INDEX NAME)



RN 90600-20-7 HCAPLUS

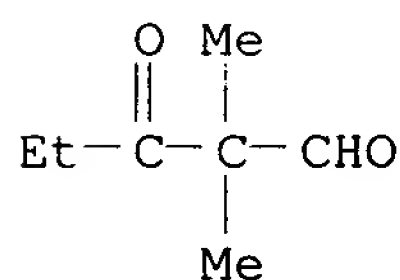
CN 4-Pentenoic acid, 2-[[(1,1-dimethylethoxy)carbonyl]amino]-, (2S)- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



RN 106921-60-2 HCAPLUS

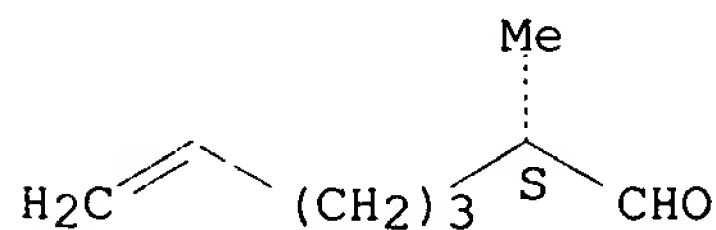
CN Pentanal, 2,2-dimethyl-3-oxo- (9CI) (CA INDEX NAME)



RN 184917-63-3 HCAPLUS

CN 6-Heptenal, 2-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

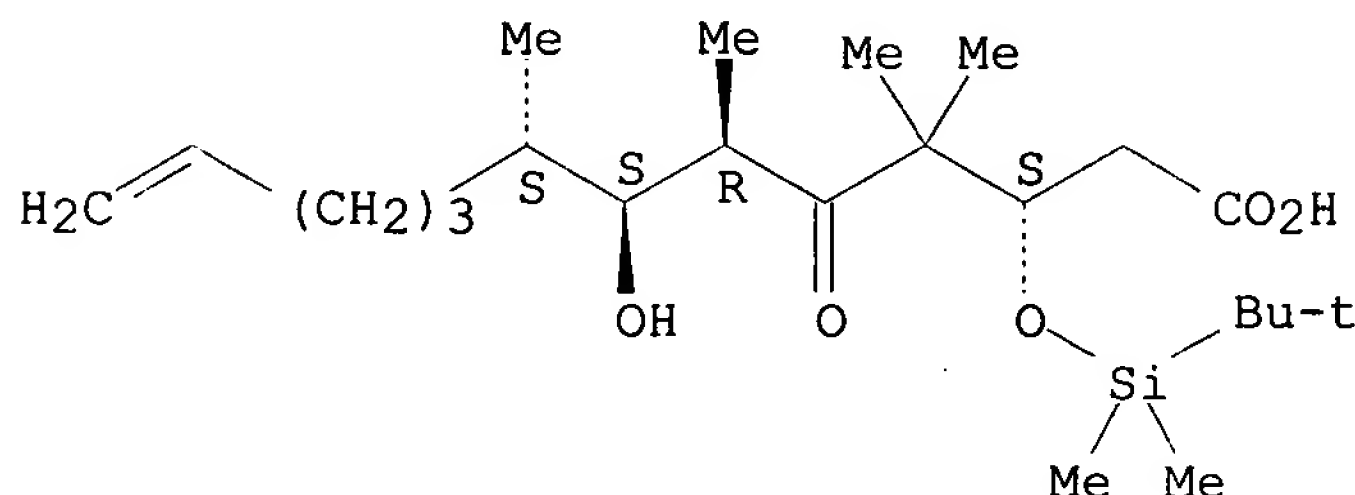


Searched by John Dantzman

RN 187283-47-2 HCAPLUS

CN 12-Tridecenoic acid, 3-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-hydroxy-4,4,6,8-tetramethyl-5-oxo-, (3S,6R,7S,8S)- (9CI) (CA INDEX NAME)

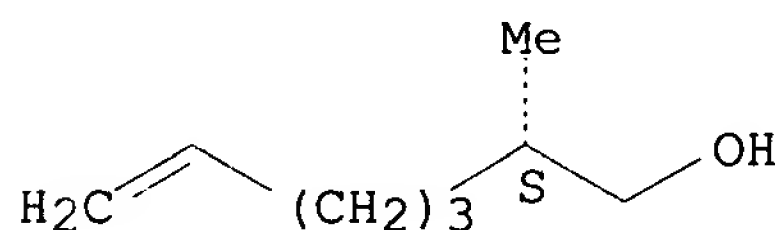
Absolute stereochemistry. Rotation (-).



RN 193071-52-2 HCAPLUS

CN 6-Hepten-1-ol, 2-methyl-, (2S)- (9CI) (CA INDEX NAME)

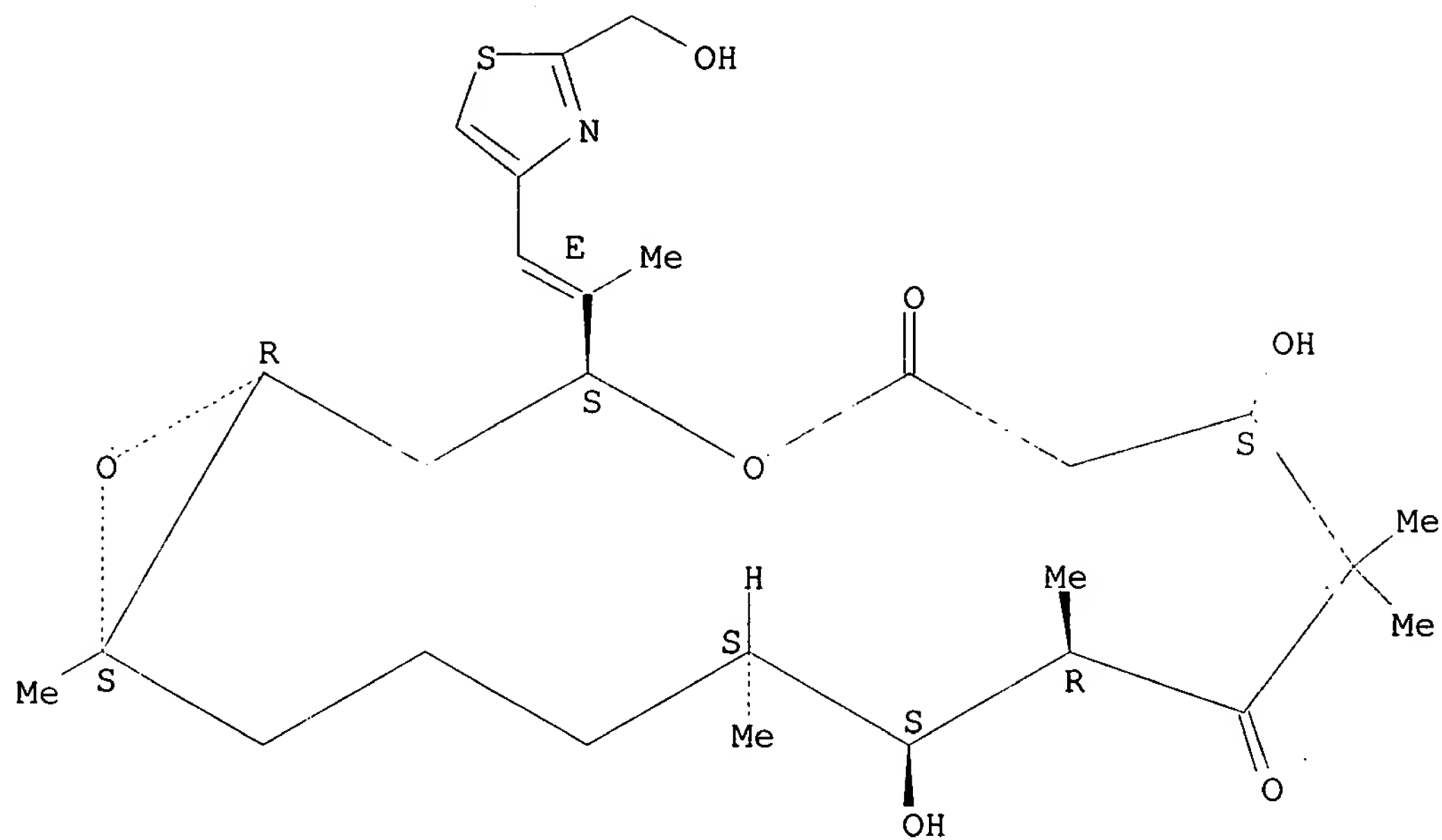
Absolute stereochemistry. Rotation (-).



RN 208518-52-9 HCAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-3-[(1E)-2-[2-(hydroxymethyl)-4-thiazolyl]-1-methylethenyl]-8,8,10,12,16-pentamethyl-, (1R,3S,7S,10R,11S,12S,16S)- (9CI) (CA INDEX NAME)

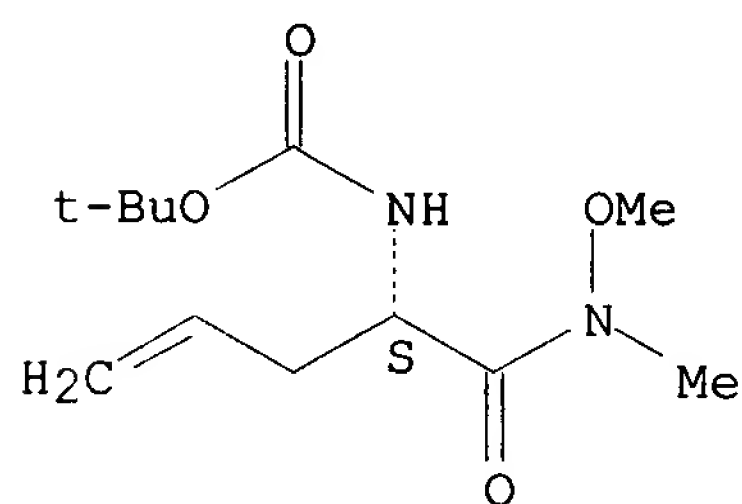
Absolute stereochemistry.
Double bond geometry as shown.



RN 208521-14-6 HCAPLUS

CN Carbamic acid, [(1S)-1-[(methoxymethylamino)carbonyl]-3-butenyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

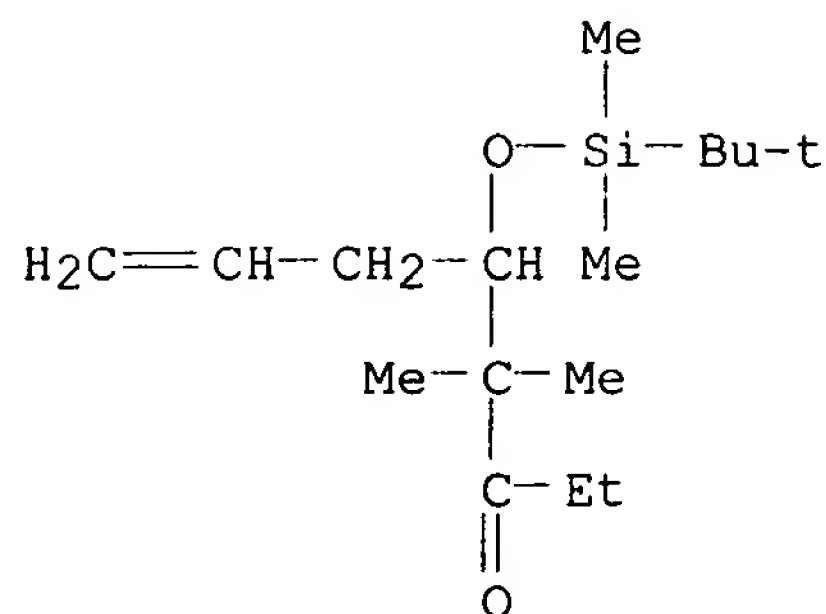
Absolute stereochemistry.



RN 219990-08-6 HCAPLUS

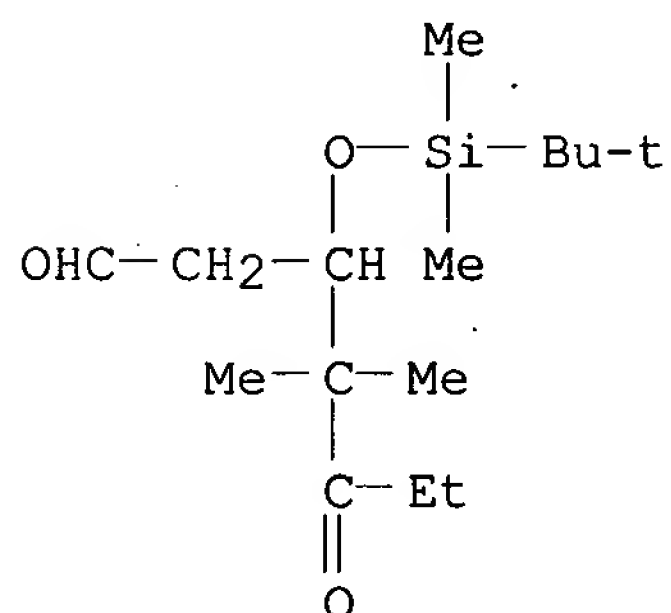
CN 7-Octen-3-one, 5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-4,4-dimethyl- (9CI) (CA INDEX NAME)

Searched by John Dantzman



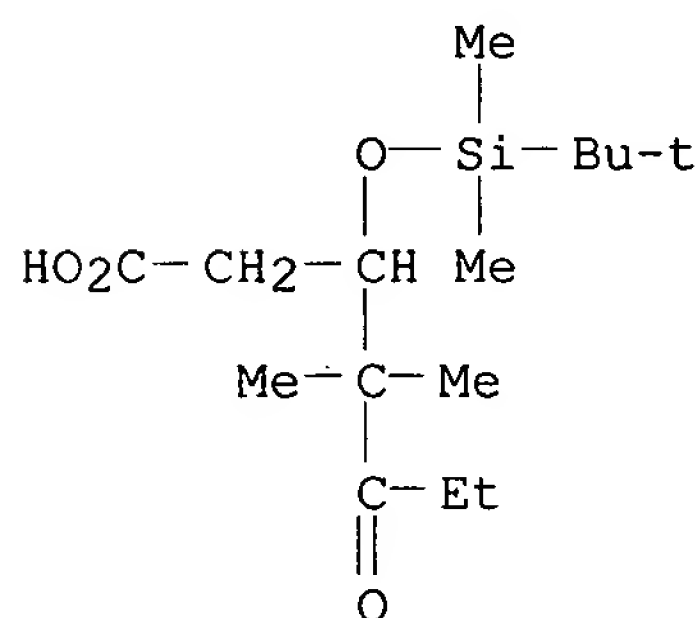
RN 219990-09-7 HCAPLUS

CN Heptanal, 3-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-4,4-dimethyl-5-oxo-
(9CI) (CA INDEX NAME)



RN 219990-10-0 HCAPLUS

CN Heptanoic acid, 3-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-4,4-dimethyl-5-oxo-
(9CI) (CA INDEX NAME)

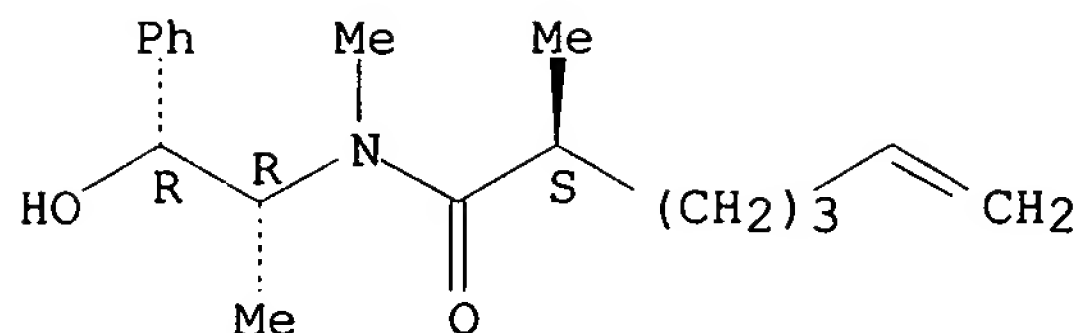


RN 219990-11-1 HCAPLUS

CN 6-Heptenamide,
N-[(1R,2R)-2-hydroxy-1-methyl-2-phenylethyl]-N,2-dimethyl-,
(2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

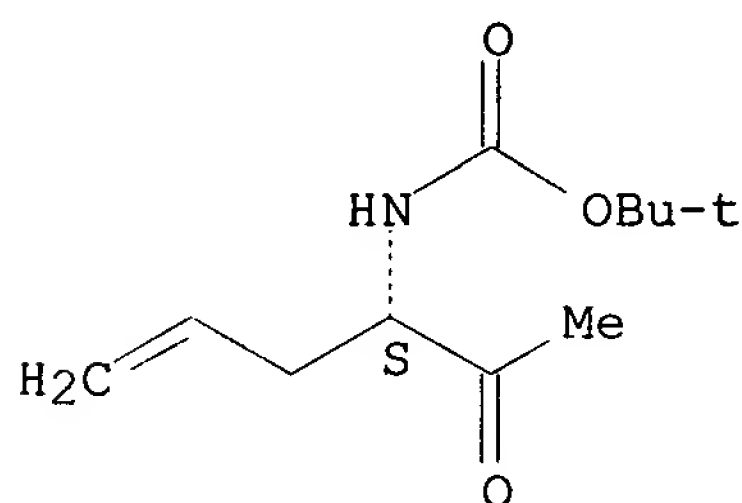
Searched by John Dantzman



RN 219990-12-2 HCAPLUS

CN Carbamic acid, [(1S)-1-acetyl-3-butenyl]-, 1,1-dimethylethyl ester (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

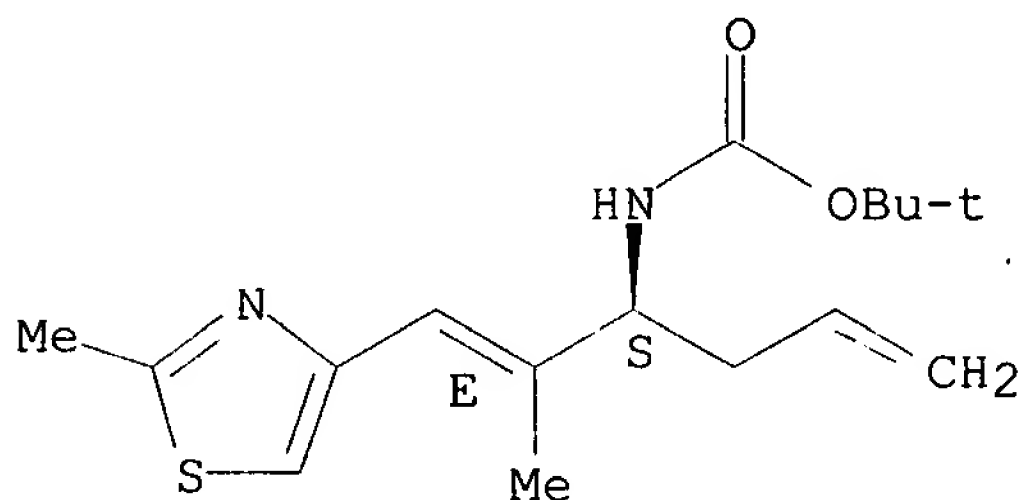


RN 219990-13-3 HCAPLUS

CN Carbamic acid, [(1S)-1-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-3-butenyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

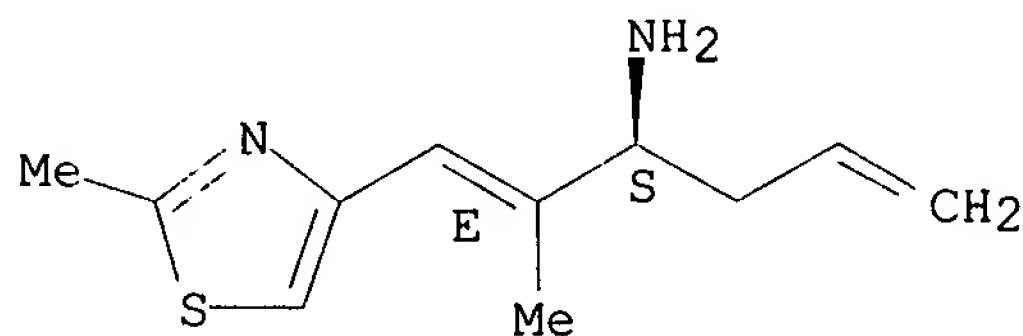


RN 219990-14-4 HCAPLUS

CN 1,5-Hexadien-3-amine, 2-methyl-1-(2-methyl-4-thiazolyl)-, (1E,3S)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

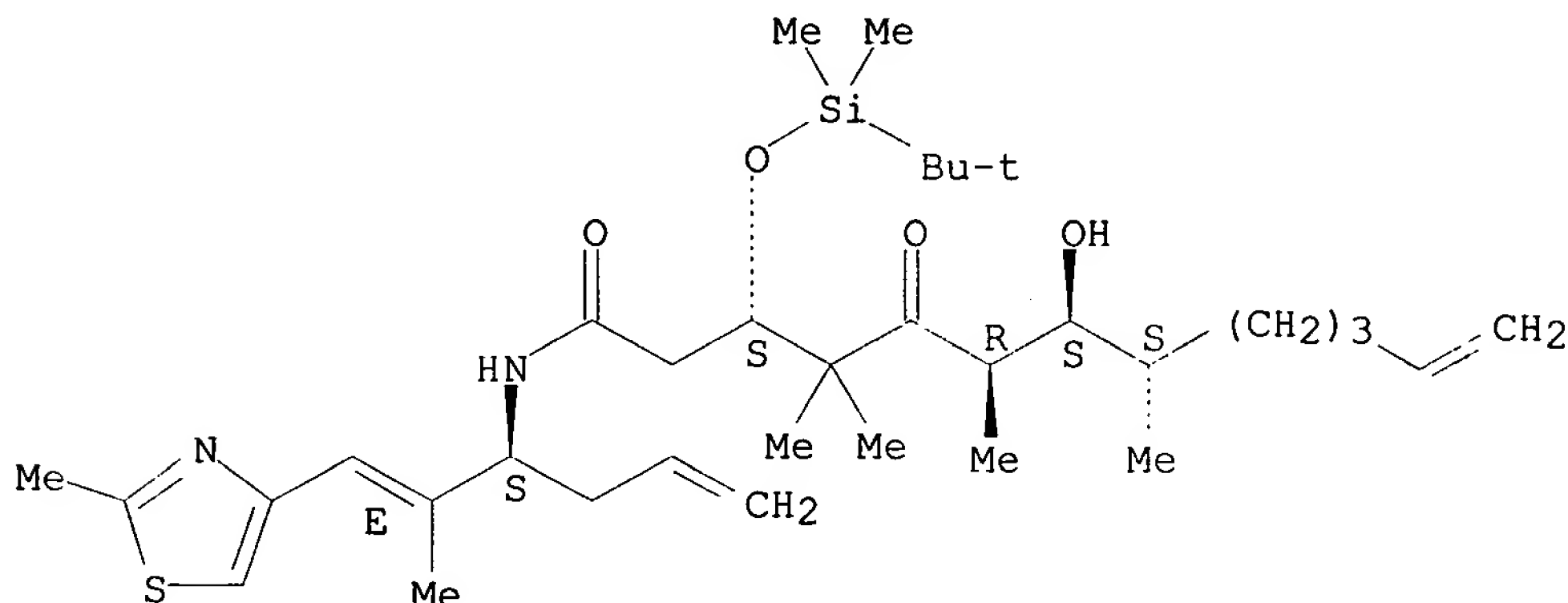
Double bond geometry as shown.



Searched by John Dantzman

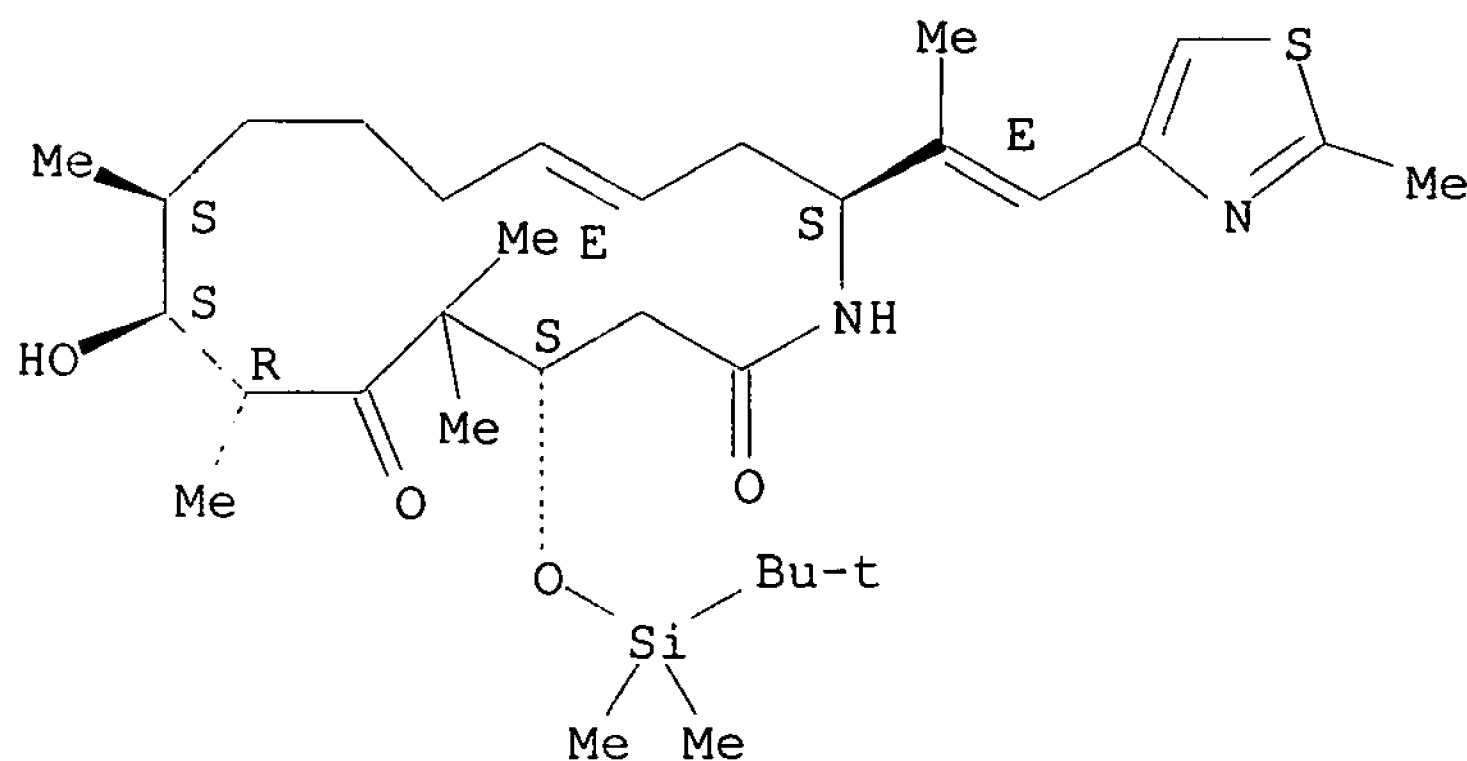
RN 219990-15-5 HCAPLUS
 CN 12-Tridecenamide, 3-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-hydroxy-4,4,6,8-tetramethyl-N-[(1S)-1-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-3-butenyl]-5-oxo-, (3S,6R,7S,8S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.



RN 219990-16-6 HCAPLUS
 CN Azacyclohexadec-13-ene-2,6-dione, 4-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-8-hydroxy-5,5,7,9-tetramethyl-16-[(1E)-1-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-, (4S,7R,8S,9S,13E,16S)- (9CI) (CA INDEX NAME)

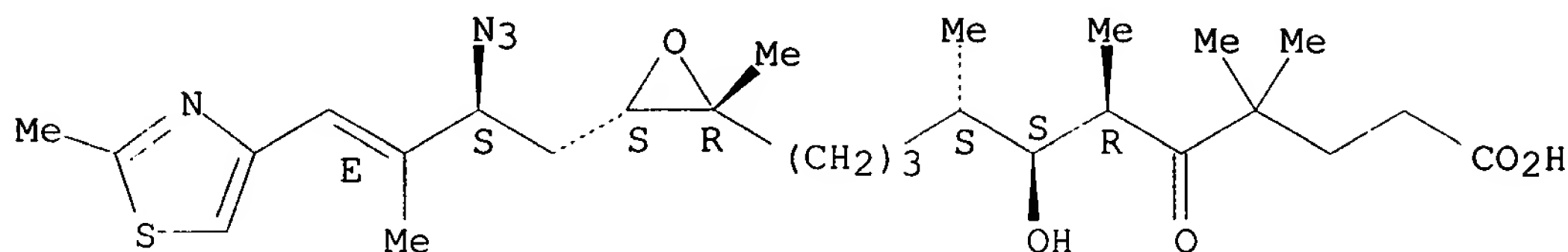
Absolute stereochemistry.
 Double bond geometry as shown.



RN 219990-18-8 HCAPLUS
 CN Oxiraneundecanoic acid, 3-[(2S,3E)-2-azido-3-methyl-4-(2-methyl-4-thiazolyl)-3-butenyl]-.zeta.-hydroxy-.gamma.,.gamma.,.epsilon.,.eta.,2-pentamethyl-.delta.-oxo-, (.epsilon.R,.zeta.S,.eta.S,2R,3S)- (9CI) (CA INDEX NAME)

Searched by John Dantzman

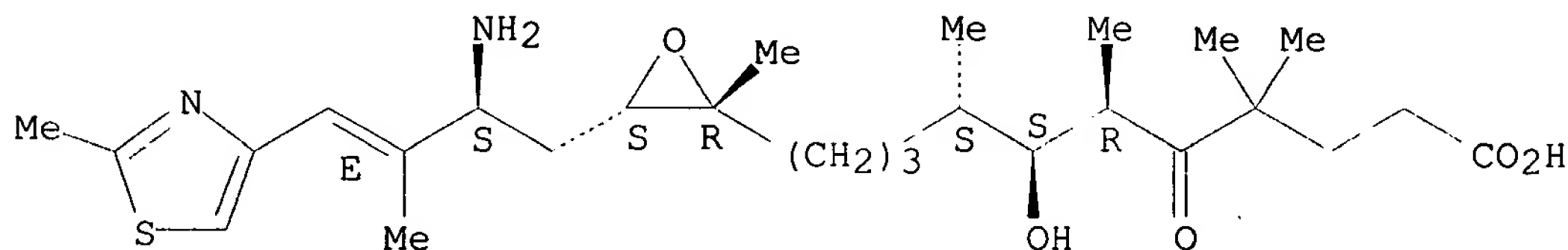
Absolute stereochemistry.
Double bond geometry as shown.



RN 219990-21-3 HCAPLUS

CN Oxiraneundecanoic acid, 3-[(2S,3E)-2-amino-3-methyl-4-(2-methyl-4-thiazolyl)-3-butenyl]-.zeta.-hydroxy-.gamma.,.gamma.,.epsilon.,.eta.,2-pentamethyl-.delta.-oxo-, (.epsilon.R,.zeta.S,.eta.S,2R,3S)- (9CI) (CA INDEX NAME)

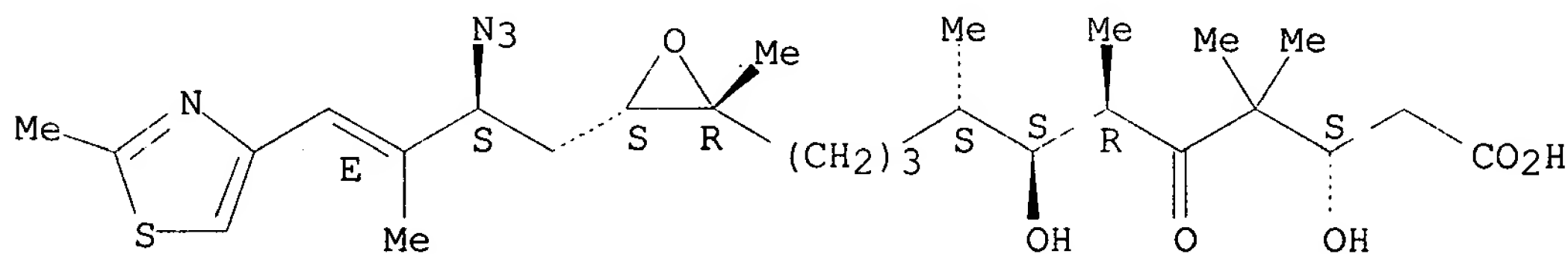
Absolute stereochemistry.
Double bond geometry as shown.



RN 219990-23-5 HCAPLUS

CN Oxiraneundecanoic acid, 3-[(2S,3E)-2-amino-3-methyl-4-(2-methyl-4-thiazolyl)-3-butenyl]-.beta.,.zeta.-dihydroxy-.gamma.,.gamma.,.epsilon.,.eta.,2-pentamethyl-.delta.-oxo-, (.beta.S,.epsilon.R,.zeta.S,.eta.S,2R,3S)- (9CI) (CA INDEX NAME)

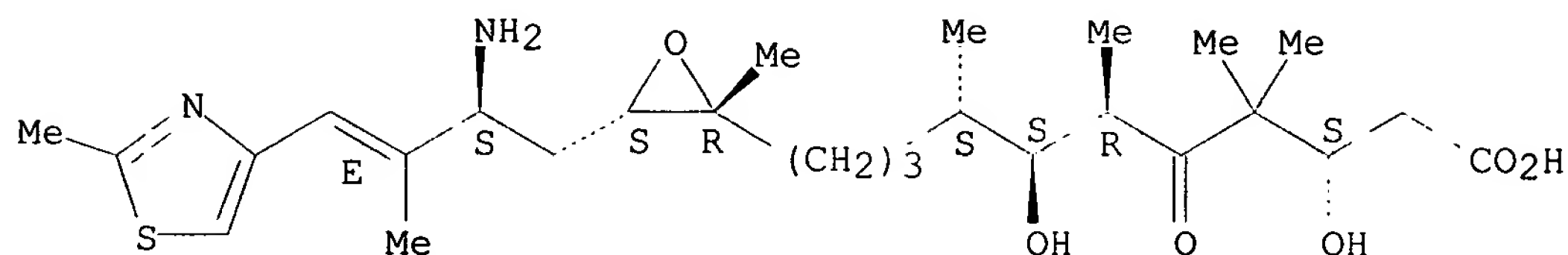
Absolute stereochemistry.
Double bond geometry as shown.



RN 219990-25-7 HCAPLUS

CN Oxiraneundecanoic acid, 3-[(2S,3E)-2-amino-3-methyl-4-(2-methyl-4-thiazolyl)-3-butenyl]-.beta.,.zeta.-dihydroxy-.gamma.,.gamma.,.epsilon.,.eta.,2-pentamethyl-.delta.-oxo-, (.beta.S,.epsilon.R,.zeta.S,.eta.S,2R,3S)- (9CI) (CA INDEX NAME)

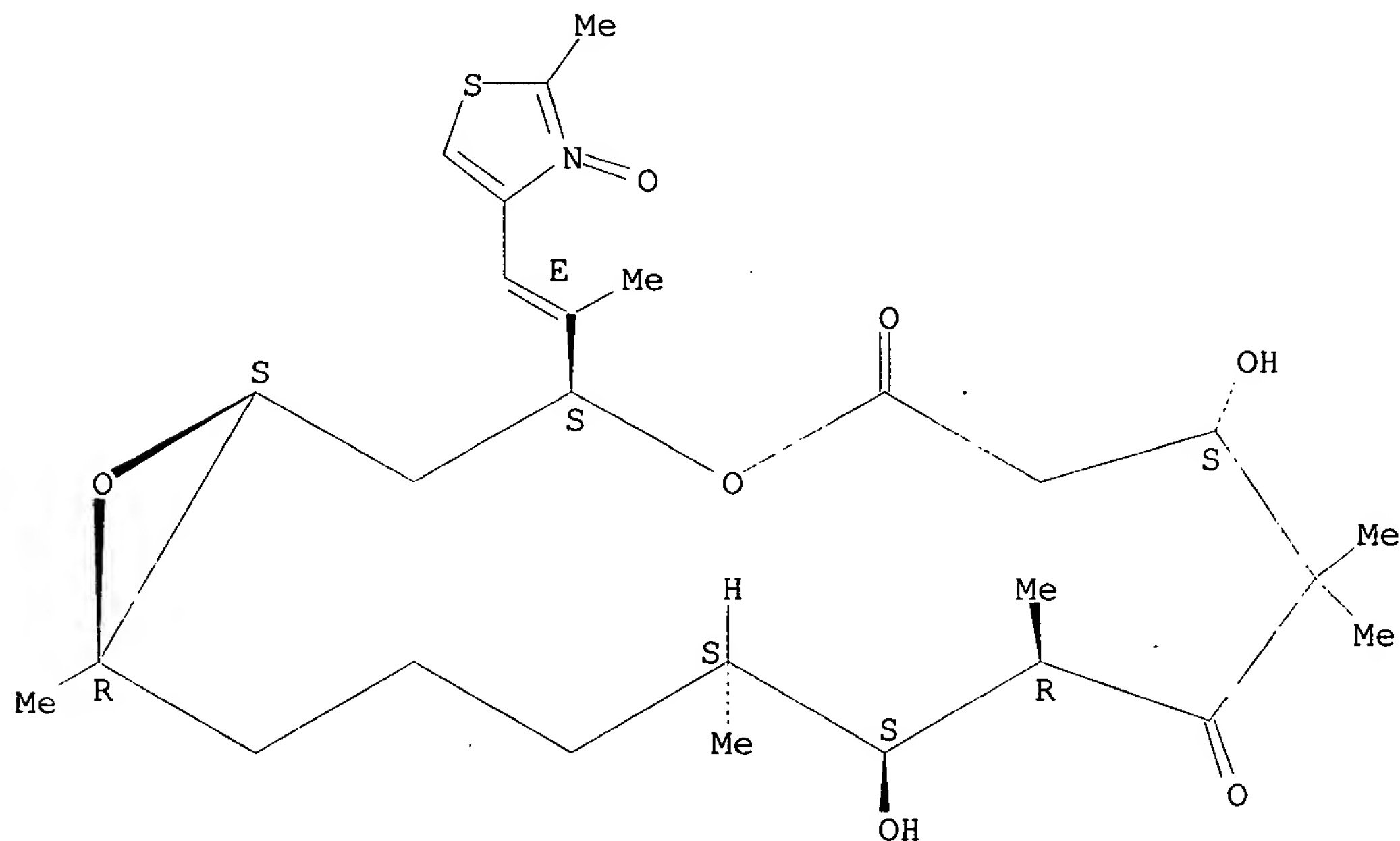
Absolute stereochemistry.
Double bond geometry as shown.



RN 219990-27-9 HCAPLUS

CN 4,17-Dioxabicyclo[14.1.0]heptadecane-5,9-dione, 7,11-dihydroxy-8,8,10,12,16-pentamethyl-3-[(1E)-1-methyl-2-(2-methyl-3-oxido-4-thiazolyl)ethenyl]-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

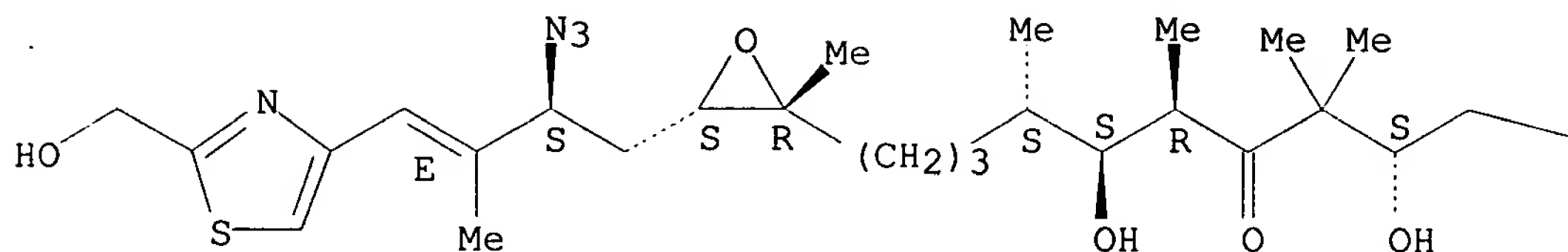


RN 219990-29-1 HCAPLUS

CN Oxiraneundecanoic acid, 3-[(2S,3E)-2-azido-4-[2-(hydroxymethyl)-4-thiazolyl]-3-methyl-3-butenyl]-.beta.,.zeta.-dihydroxy-.gamma.,.gamma.,.epsilon.,.eta.,2-pentamethyl-.delta.-oxo-, (.beta.S,.epsilon.R,.zeta.S,.eta.S,2R,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

—CO₂H

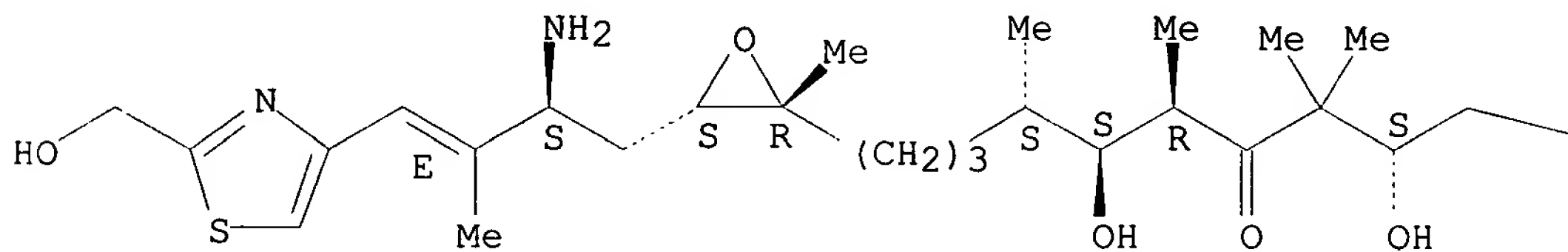
RN 219990-32-6 HCAPLUS

CN Oxiraneundecanoic acid, 3-[(2S,3E)-2-amino-4-[2-(hydroxymethyl)-4-thiazolyl]-3-methyl-3-butenyl]-.beta.,.zeta.-dihydroxy-.gamma.,.gamma.,.epsilon.,.eta.,2-pentamethyl-.delta.-oxo-, (.beta.S,.epsilon.R,.zeta.S,.eta.S,2R,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

—CO₂H

RN 219990-35-9 HCAPLUS

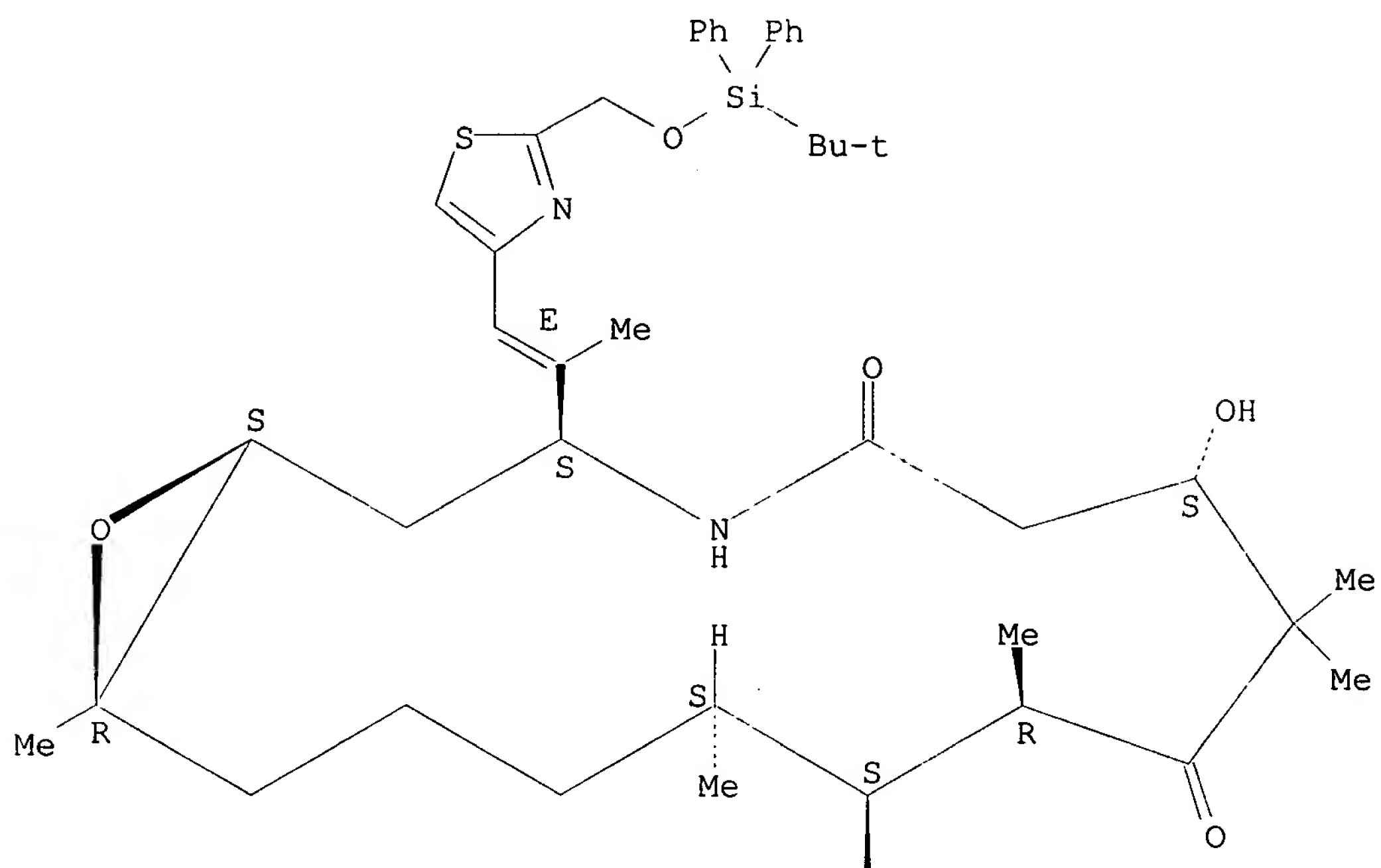
CN 17-Oxa-4-azabicyclo[14.1.0]heptadecane-5,9-dione, 3-[(1E)-2-[2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-4-thiazolyl]-1-methylethenyl]-7,11-dihydroxy-8,8,10,12,16-pentamethyl-, (1S,3S,7S,10R,11S,12S,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

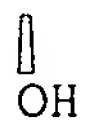
Double bond geometry as shown.

Searched by John Dantzman

PAGE 1-A



PAGE 2-A



=> d all

L10 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 1999 ACS
AN 1999:375551 HCAPLUS
TI A process for the reduction of oxiranyl **epothilones** to olefinic
epothilones
IN Kim, Soong-Hoon; Johnson, James A.
PA Bristol-Myers Squibb Company, USA
SO PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07D493-04
ICS C07D417-06; C07D277-24; C07D493-08; A61K031-425
CC 28 (Heterocyclic Compounds (More Than One Hetero Atom))
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9928324	A1	19990610	WO 98-US25464	19981201
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
PRAI	US 97-67549		19971204		
	US 98-82563		19980421		
AB	The present invention relates to a process for the redn. of oxiranyl epothilones to olefinic epothilones .				

=> d all 2

L10 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 1999 ACS

AN 1999:372044 HCAPLUS

TI A process for the preparation of ring-opened **epothilone** intermediates which are useful for the preparation of **epothilone** analogs

IN **Kim, Soong-Hoon; Borzilleri, Robert M.**

PA Bristol-Myers Squibb Company, USA

SO PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K

CC 28 (Heterocyclic Compounds (More Than One Hetero Atom))

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9927890	A2	19990610	WO 98-US25408	19981130
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

PRAI US 97-67550 19971204

AB The present invention relates to a process to produce ring opened **epothilones** and the novel ring opened **epothilones** produced therefrom.